http://biz.lgservice.com

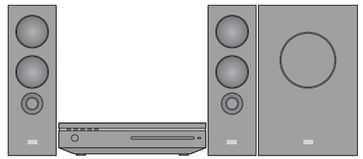
2.1CH HOME THEATER SYSTEM

SERVICE MANUAL

MODEL : J10HD (J10HD-SF / J10HD-SA)

CAUTION

BEFORE SERVICING THE UNIT, READ THE “SAFETY PRECAUTIONS” IN THIS MANUAL.



P/NO : AFN32759801

NOVEMBER, 2006

SERVICE MANUAL

MODEL : J10HD (J10HD-SF / J10HD-SA)

LG

CONTENTS

SECTION 1.....SUMMARY
SECTION 2.....ELECTRICAL
SECTION 3.....CABINET & MAIN CHASSIS
SECTION 4.....REPLACEMENT PARTS LIST

SECTION 1

SUMMARY

CONTENTS

PRODUCT SAFETY SERVICING GUIDELINES FOR HOME THEATER SYSTEM PRODUCTS.....1-3

SERVICING PRECAUTIONS.....1-4
- GENERAL SERVICING PRECAUTIONS
- INSULATION CHECKING PRODEDURE
- ELECTROSTATICALLY SENSITIVE (ES) DEVICES

SERVICE INFORMATION FOR EEPROM 1-5

SPECIFICATIONS 1-6

PRODUCT SAFETY SERVICING GUIDELINES FOR HOME THEATER SYSTEM PRODUCTS

IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-video service technicians.

When servicing this product, under no circumstances should the original design be modified or altered without permission from LG Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring and lead dress must conform to original layout upon completion of repairs.

Special components are also used to prevent x-radiation, shock and fire hazard. These components are indicated by the letter "x" included in their component designators and are required to maintain safe performance. No deviations are allowed without prior approval by LG Corporation.

Circuit diagrams may occasionally differ from the actual circuit used. This way, implementation of the latest safety and performance improvement changes into the set is not delayed until the new service literature is printed.

CAUTION : Do not attempt to modify this product in any way. Never perform customized installations without manufacturer's approval. Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

GRAPHIC SYMBOLS

The exclamation point within an equilateral triangle is intended to alert the service personnel to important safety information in the service literature.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the service personnel to the presence of noninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.

The pictorial representation of a fuse and its rating within an equilateral triangle is intended to convey to the service personnel the following fuse replacement caution notice:

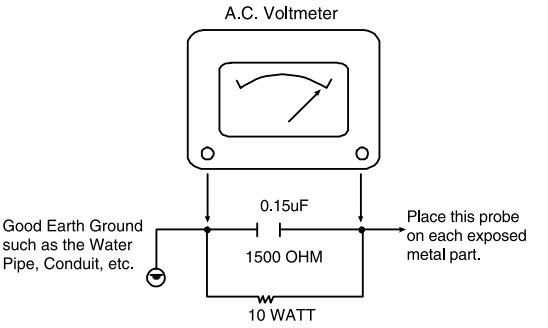
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ALL FUSES WITH THE SAME TYPE AND RATING AS MARKED NEAR EACH FUSE.

SERVICE INFORMATION

While servicing, use an isolation transformer for protection from AC line shock. After the original service problem has been corrected, make a check of the following:

FIRE AND SHOCK HAZARD

1. Be sure that all components are positioned to avoid a possibility of adjacent component shorts. This is especially important on items trans-ported to and from the repair shop.
2. Verify that all protective devices such as insulators, barriers, covers, shields, strain reliefs, power supply cords, and other hardware have been reinstalled per the original design. Be sure that the safety purpose of the polarized line plug has not been defeated.
3. Soldering must be inspected to discover possible cold solder joints, solder splashes, or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, for frayed leads or damaged insulation (including the AC cord), and replace if necessary.
5. No lead or component should touch a high current device or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. After reassembly of the set, always perform an AC leakage test on all exposed metallic parts of the cabinet (the channel selector knobs, antenna terminals, handle and screws) to be sure that set is safe to operate without danger of electrical shock. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor, paralleled by a .15 mfd 150V AC type capacitor between a known good earth ground water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and .15 mfd capacitor. Reverse the AC plug by using a non-polarized adaptor and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



TIPS ON PROPER INSTALLATION

1. Never install any receiver in a closed-in recess, cubbyhole, or closely fitting shelf space over, or close to, a heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as: outdoor patio installations where dew is a factor, near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct venting. The customer should also avoid the use of decorative scarves or other coverings that might obstruct ventilation.
4. Wall- and shelf-mounted installations using a commercial mounting kit must follow the factory-approved mounting instructions. A product mounted to a shelf or platform must retain its original feet (or the equivalent thickness in spacers) to provide adequate air flow across the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
5. Caution customers against mounting a product on a sloping shelf or in a tilted position, unless the receiver is properly secured.
6. A product on a roll-about cart should be stable in its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against using extension cords. Explain that a forest of extensions, sprouting from a single outlet, can lead to disastrous consequences to home and family.

SERVICING PRECAUTIONS

CAUTION: Before servicing the HOME THEATER SYSTEM covered by this service data and its supplements and addends, read and follow the SAFETY PRECAUTIONS. NOTE: if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publications, always follow the safety precautions.
Remember Safety First :

General Servicing Precautions

1. Always unplug the HOME THEATER SYSTEM AC power cord from the AC power source before:
   (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
   (2) Disconnecting or reconnecting any internal electrical plug or other electrical connection.
   (3) Connecting a test substitute in parallel with an electrolytic capacitor.
   Caution : A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Do not spray chemicals on or near this HOME THEATER SYSTEM or any of its assemblies.

3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cotton-tipped swab, or comparable soft applicator.
   Unless specified otherwise in this service data, lubrication of contacts is not required.

4. Do not defeat any plug/socket B+ voltage interlocks with whitch instruments covered by this service manual might be equipped.

5. Do not apply AC power to this HOME THEATER SYSTEM and / or any of its electrical assemblies unless all solidstate device heat sinks are correctly installed.

6. Always connect the test instrument ground lead to an appropriate ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter (500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1Mohm.
Note 1 : Accessible Conductive Parts include Metal panels, Input terminals, Earphone jacks,etc.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor chip components.
The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static” can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate an electrical charge sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil,or comparable conductive material).

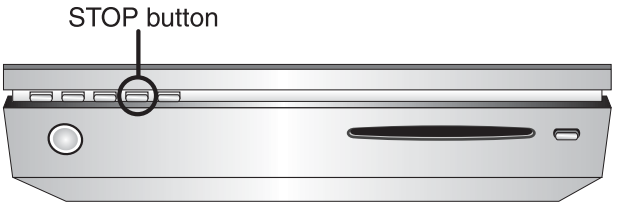
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

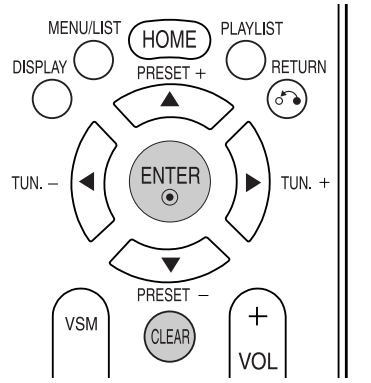
   Caution: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

SERVICE INFORMATION FOR EEPROM

1. Press the CLEAR button on the remote control together with STOP button on the front panel about ± 6 sec.





The picture on OSD will be as bellow :

*** Refer to page 4-1**

OP1 : 00	**00000000**	**MASK : 30**
OP2 : 00	**00000000**	**E : FF (OR)**
OP3 : 00	**00000000**	**D39**
OP4 : 00	**00000000**	
OP5 : 00	**00000000**	
OP6 : 00	**00000000**	
OP7 : 00	**00000000**	
OP8 : 00	**00000000**	**EXIT :**
OP9 : 00	**00000000**	**MOVE : < >**
OPA : 00	**00000000**	**EDIT**

2. To MOVE from OP1 (Option 1) to another option, press ◀▶ button on the remote control.
3. To CHANGE the option code, press ▲▼ button on the remote control.
4. To APPLY the option code, after change the option press ENTER button on remote control.
5. OSD “Write OK”.
6. To INITIALIZE the system, press CLEAR button on the remote control together with STOP button on the front panel about ± 6 sec.
7. To exit from the option code menu without initialize the system, just turn off the power and then turn on again.

SPECIFICATIONS

• GENERAL

Dimensions (approx.)	326 X 215 X 78mm (w x h x d) without foot
Mass (approx.)	3.1kg
Operating temperature	5°C to 35°C
Operating humidity	5% to 90 %

Audio recording format

Sampling frequency	44.1kHz
Compression format	MP3
Sampling bitrate	128Kbps

• RECORDING

Recordable media	HDD (80GB)

• PLAYBACK

Frequency response	DVD (PCM 48kHz) : 20Hz to 20kHz, CD : 20Hz to 20kHz DVD (PCM 96kHz) : 20Hz to 44kHz
Signal-to-noise ratio	More than 85dB (SPEAKER OUT)
Harmonic distortion	Less than 0.007% (SPEAKER OUT)
Dynamic range	More than 85dB (SPEAKER OUT)

• INPUTS

Audio input (optical audio)	3V (p-p), 75Ω, Optical connector x 1
VIDEO IN	1.0Vp-p 75ohms, sync negative, SCART x 1
AUDIO IN	0dBm more than 47kohms, RCA jack (L, R) x 1 / SCART x 1

• OUTPUTS

VIDEO OUT	1Vp-p 75Ω, sync negative, RCA jack x 1 / SCART x 1
COMPONENT VIDEO OUT	(Y) 1.0V (p-p), 75Ω, negative sync, RCA jack x 1 (Pb) / (Pr) 0.7V (p-p), 75Ω, RCA jack x 2
HDMI video / audio output	19pin (HDMI standard, Type A)

• AMPLIFIER

Output power	Front : 75W + 75W (4Ω at 1kHz, THD 10%) Subwoofer : 150W (3Ω at 60Hz, THD 10%)

• TUNER SPECIFICATIONS

Tuning Range (FM)	87.5 - 108MHz
Intermediate Frequency (FM)	10.7MHz
Signal-to-noise ratio	60dB(Mono)
Tuning Range (AM)	522 - 1,611kHz
Intermediate Frequency (AM)	450kHz
Antenna	Wire antenna (FM) Loop antenna (AM)

• SPEAKERS

Front (J10HD-SF)

Type :	2 Way 3 Speaker
Impedance :	4Ω
Frequency Response :	100 - 20,000Hz
Sound Pressure Level :	82dB/W (1m)
Max. Input Power :	150W
Net Dimensions (WxHxD) :	104 x 328 x 21mm
Net Weight :	2.9kg

Active Subwoofer (J10HD-SA)

Power requirements :	AC 200 - 240V, 50/60Hz
Power consumption :	75W
Type :	1 Way 1 Speaker
Impedance :	3Ω
Frequency Response :	65 - 1,500Hz
Sound Pressure Level :	80dB/W (1m)
Max. Input Power :	300W
Net Dimensions (WxHxD) :	216x 328 x 317mm
Net Weight :	8.3kg

SECTION 2

ELECTRICAL

CONTENTS

ELECTRICAL TROUBLESHOOTING GUIDE 2-2
1. SMPS TROUBLESHOOTING FLOW 2-2
2. DC/DC TROUBLESHOOTING FLOW 2-5

WAVEFORMS 2-8
1. WHEN POWER ON, RESET (DVD & μ-COM) WAVEFORM 2-8
2. AT USB FUNCTION, DP, DM WAVEFORM...2-8
3. STARTING ACTION WAVEFORM IN MD DEVICE 2-9
4. AT DVD FUNCTION.....2-9
5. AT POWER ON, SPINDLE SIGNAL AT MD DECK 2-10
6. TRACKING SIGNAL 2-10
7. DISK TYPE JUGEMENT WAVEFORM.....2-11

WIRING DIAGRAMS.....2-13
1. ACTIVE SUBWOOFER WIRING DIAGRAM 2-13
2. MAIN SYSTEM WIRING DIAGRAM.....2-15

BLOCK DIAGRAMS 2-17
1. ACTIVE SUBWOOFER BLOCK DIAGRAM 2-17
2. MAIN SYSTEM BLOCK DIAGRAM 2-19
3. DC/DC SMPS BLOCK DIAGRAM 2-21
4. DC/DC CONVERTER BLOCK DIAGRAM 2-23

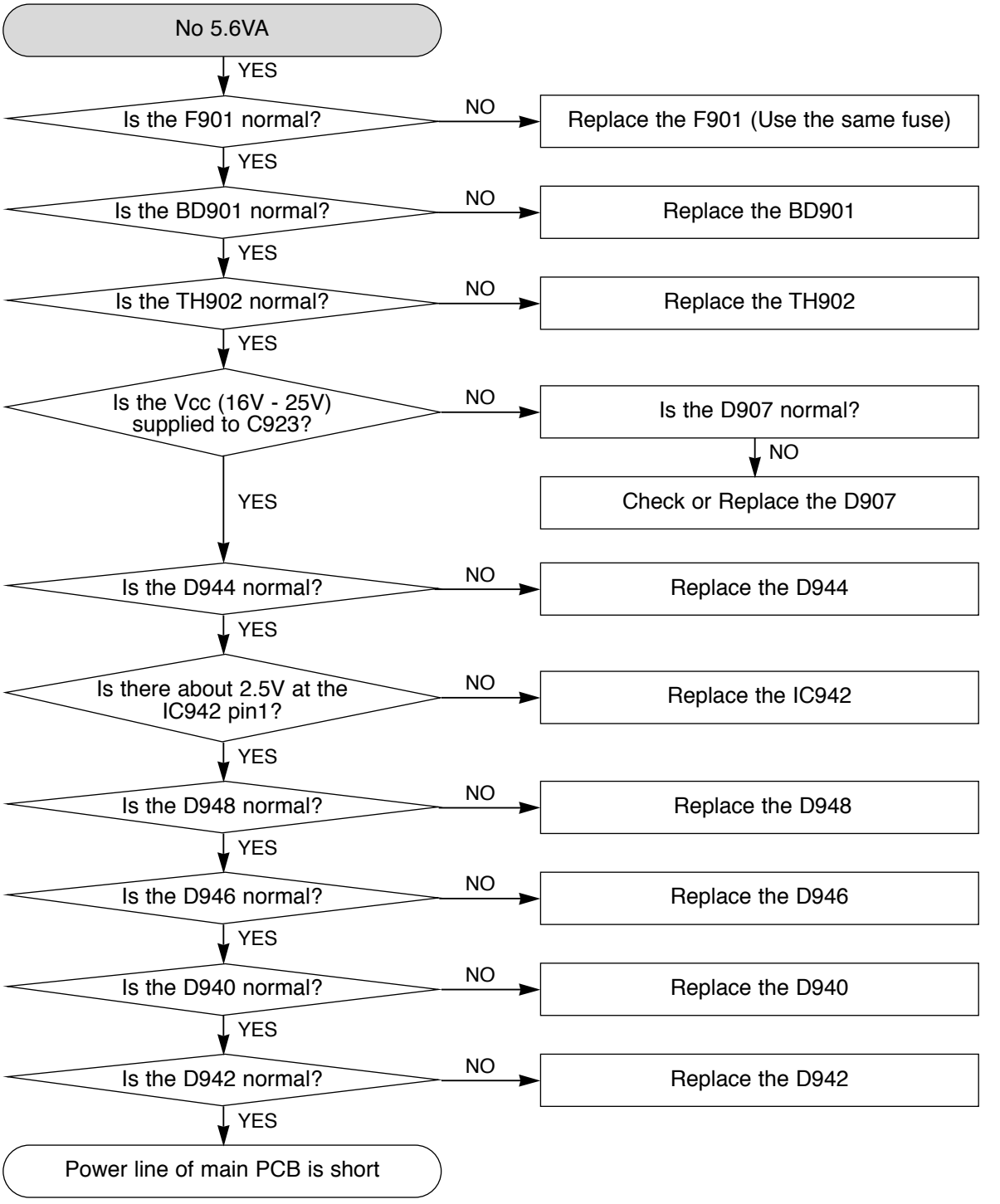
CIRCUIT DIAGRAMS 2-25
1. SMPS (POWER) CIRCUIT DIAGRAM 2-25
2. SMPS (DC/DC CONVERTER) CIRCUIT DIAGRAM.....2-27
3. AMP & PWM CIRCUIT DIAGRAM.....2-29
4. I/O & POWER CIRCUIT DIAGRAM.....2-31
5. XM READY CIRCUIT DIAGRAM.....2-33
6. μ-COM (MAIN) CIRCUIT DIAGRAM.....2-35
7. RF, DRIVE & OPU CIRCUIT DIAGRAM.....2-37
8. MPEG CIRCUIT DIAGRAM 2-39
9. DSP (MS3900) CIRCUIT DIAGRAM.....2-41
10. HDMI CIRCUIT DIAGRAM.....2-43
11. POWER INTERFACE CIRCUIT DIAGRAM.....2-45
12. USB CIRCUIT DIAGRAM 2-47
13. T-SLIDE CIRCUIT DIAGRAM 2-49
14. LOGO & RCU CIRCUIT DIAGRAM.....2-50
15. KEY CIRCUIT DIAGRAM.....2-51
16. EJECT CIRCUIT DIAGRAM 2-52
17. HEADPHONE & USB CIRCUIT DIAGRAM ...2-53
18. RCU CIRCUIT DIAGRAM.....2-54
19. TOUCH PAD CIRCUIT DIAGRAM.....2-55

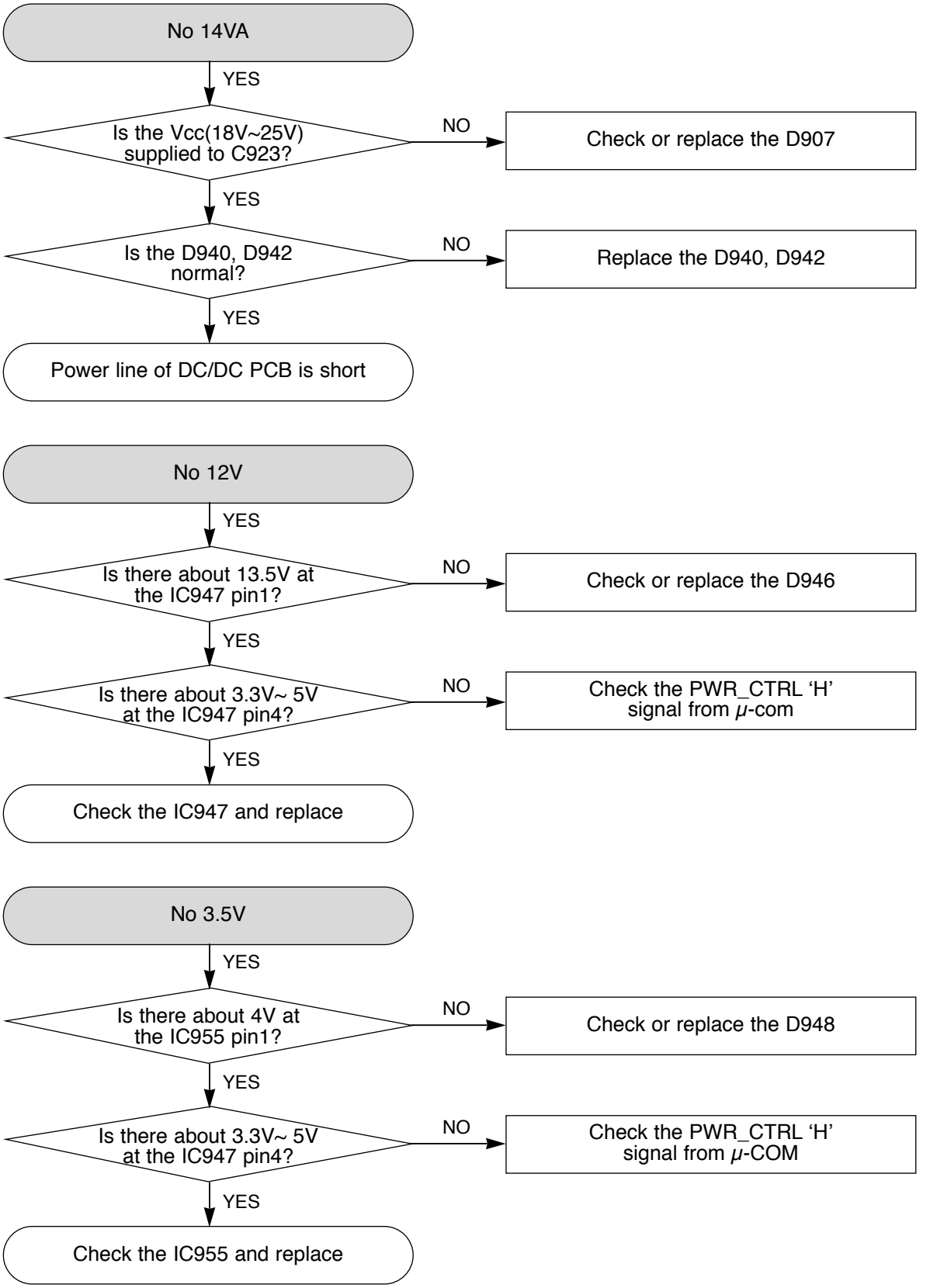
• **CIRCUIT VOLTAGE CHART** 2-57

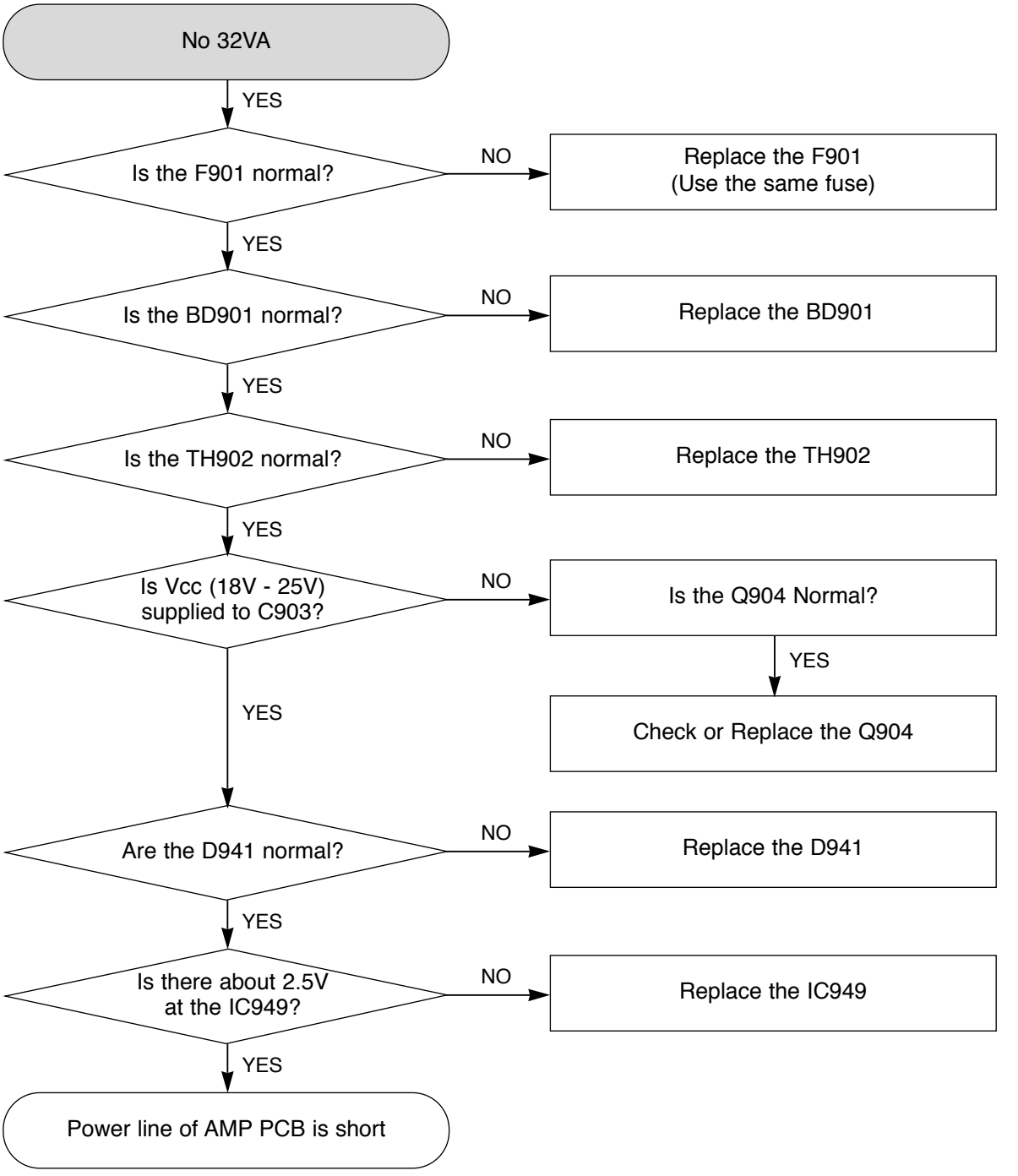
PRINTED CIRCUIT DIAGRAMS.....2-59
1. DVD MAIN P.C.BOARD 2-59
2. MAIN SMPS P.C.BOARD 2-63
3. DC/DC CONVERTER P.C.BOARD.....2-64
4. MAIN AMP P.C.BOARD.....2-65
5. TOUCH PAD P.C.BOARD 2-69
6. TOUCH SLIDE P.C.BOARD 2-71
7. I/O P.C.BOARD 2-71
8. HDD TO MAIN ATAPI P.C.BOARD.....2-73
9. USB & PHONE P.C.BOARD 2-73
10. EJECT P.C.BOARD.....2-74
11. LOGO P.C.BOARD.....2-73
12. KEY P.C.BOARD.....2-74
13. LED 1 P.C.BOARD.....2-75
14. LED 2 P.C.BOARD.....2-75
15. RCU P.C.BOARD 2-76

ELECTRICAL TROUBLESHOOTING GUIDE

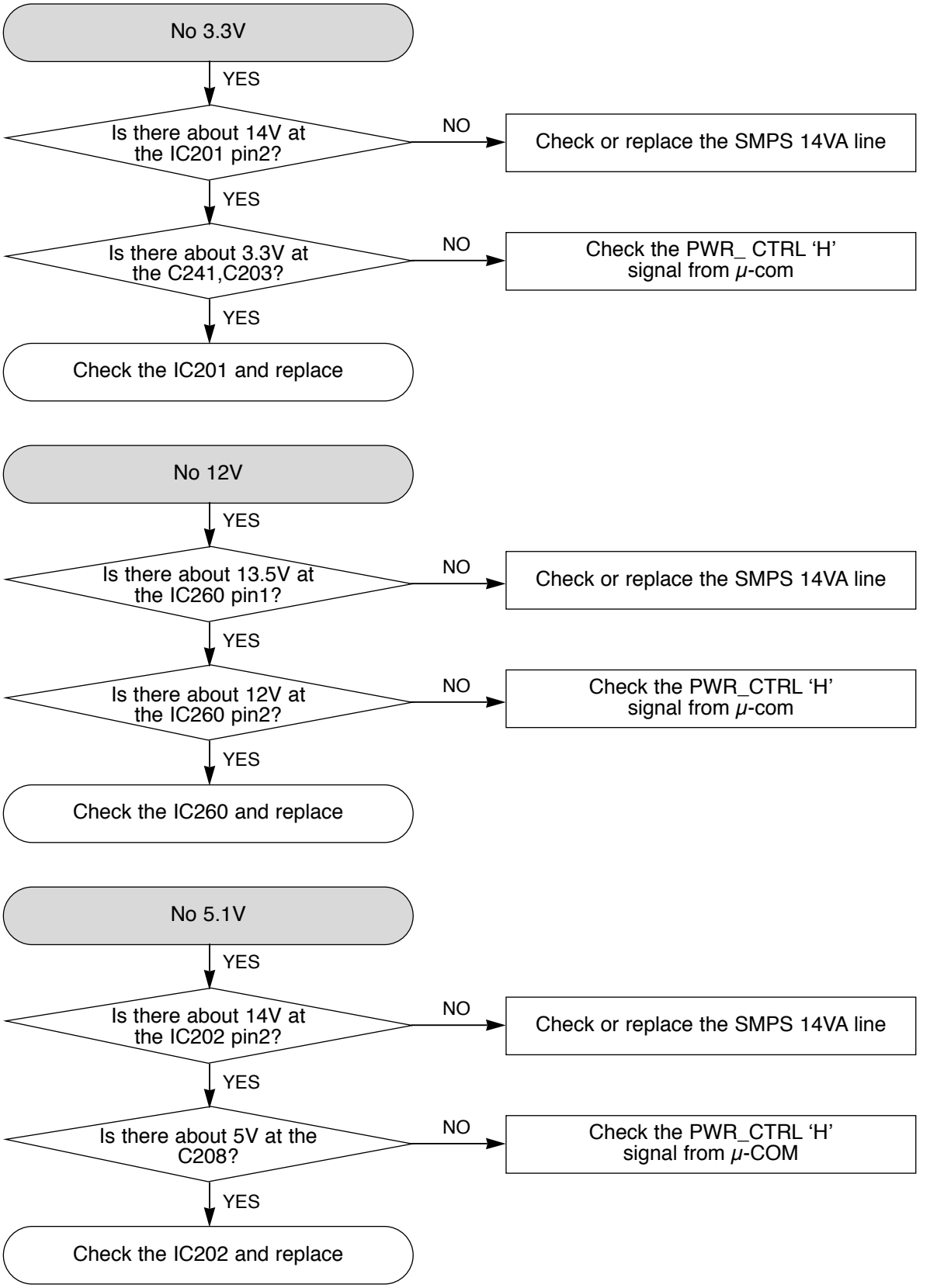
1. SMPS TROUBLESHOOTING FLOW

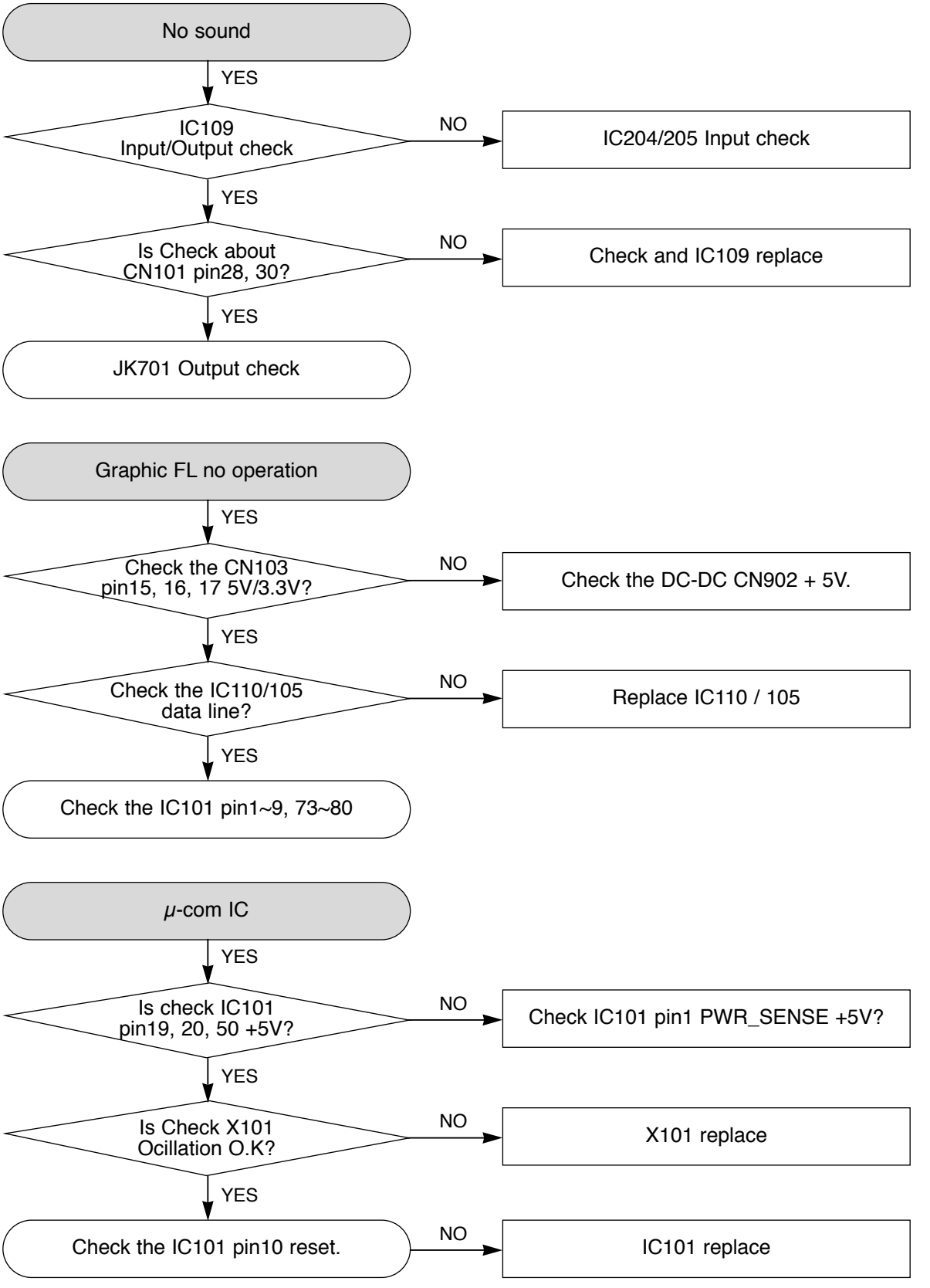


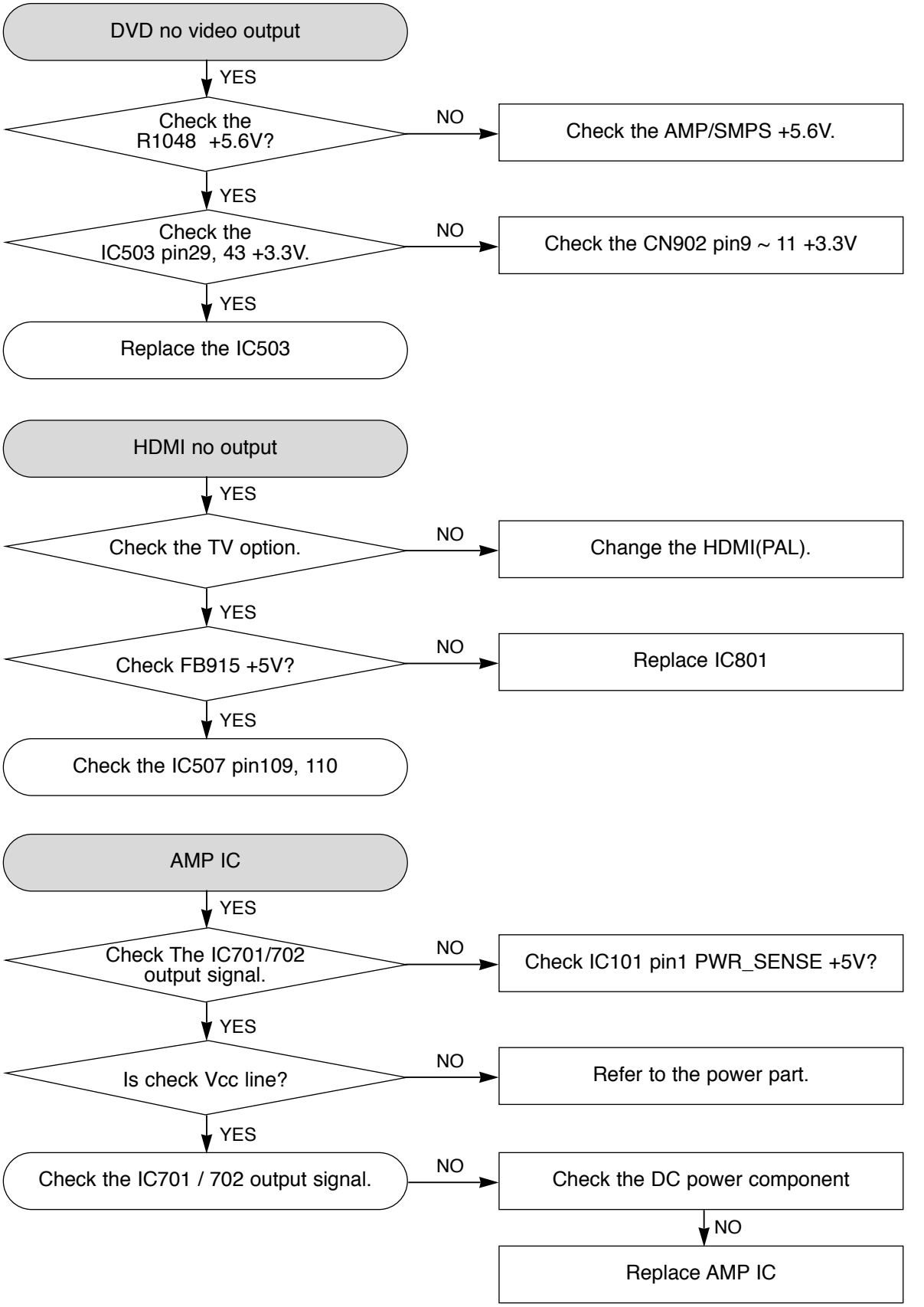

No 14VA
YES
Is the Vcc(18V~25V) supplied to C923?
NO
Check or replace the D907
YES
Is the D940, D942 normal?
NO
Replace the D940, D942
YES
Power line of DC/DC PCB is short
No 12V
YES
Is there about 13.5V at the IC947 pin1?
NO
Check or replace the D946
YES
Is there about 3.3V~ 5V at the IC947 pin4?
NO
Check the PWR_CTRL 'H' signal from μ-com
YES
Check the IC947 and replace
No 3.5V
YES
Is there about 4V at the IC955 pin1?
NO
Check or replace the D948
YES
Is there about 3.3V~ 5V at the IC947 pin4?
NO
Check the PWR_CTRL 'H' signal from μ-COM
YES
Check the IC955 and replace


No 32VA
YES
Is the F901 normal?
NO
Replace the F901
(Use the same fuse)
YES
Is the BD901 normal?
NO
Replace the BD901
YES
Is the TH902 normal?
NO
Replace the TH902
YES
Is Vcc (18V - 25V)
supplied to C903?
NO
Is the Q904 Normal?
YES
Check or Replace the Q904
YES
Are the D941 normal?
NO
Replace the D941
YES
Is there about 2.5V
at the IC949?
NO
Replace the IC949
YES
Power line of AMP PCB is short

2. DC/DC TROUBLESHOOTING FLOW




No sound
YES
IC109
Input/Output check
NO
IC204/205 Input check
YES
Is Check about
CN101 pin28, 30?
NO
Check and IC109 replace
YES
JK701 Output check
Graphic FL no operation
YES
Check the CN103
pin15, 16, 17 5V/3.3V?
NO
Check the DC-DC CN902 + 5V.
YES
Check the IC110/105
data line?
NO
Replace IC110 / 105
YES
Check the IC101 pin1~9, 73~80
μ-com IC
YES
Is check IC101
pin19, 20, 50 +5V?
NO
Check IC101 pin1 PWR_SENSE +5V?
YES
Is Check X101
Ocillation O.K?
NO
X101 replace
YES
Check the IC101 pin10 reset.
NO
IC101 replace


DVD no video output
YES
Check the R1048 +5.6V?
NO
Check the AMP/SMPS +5.6V.
YES
Check the IC503 pin29, 43 +3.3V.
NO
Check the CN902 pin9 ~ 11 +3.3V
YES
Replace the IC503
HDMI no output
YES
Check the TV option.
NO
Change the HDMI(PAL).
YES
Check FB915 +5V?
NO
Replace IC801
YES
Check the IC507 pin109, 110
AMP IC
YES
Check The IC701/702 output signal.
NO
Check IC101 pin1 PWR_SENSE +5V?
YES
Is check Vcc line?
NO
Refer to the power part.
YES
Check the IC701 / 702 output signal.
NO
Check the DC power component
NO
Replace AMP IC

WAVEFORMS

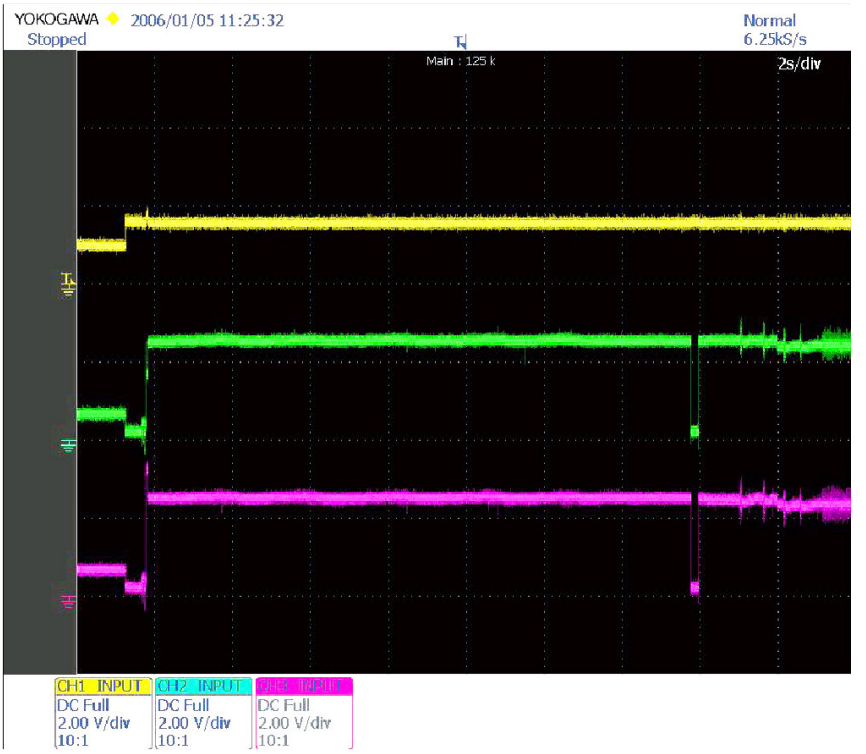
1. WHEN POWER ON, RESET (DVD & μ-COM) WAVEFORM

IC507
- RESET(DVD) : PIN2
- RESET(u-COM) : PIN10

2. AT USB FUNCTION, DP, DM WAVEFORM

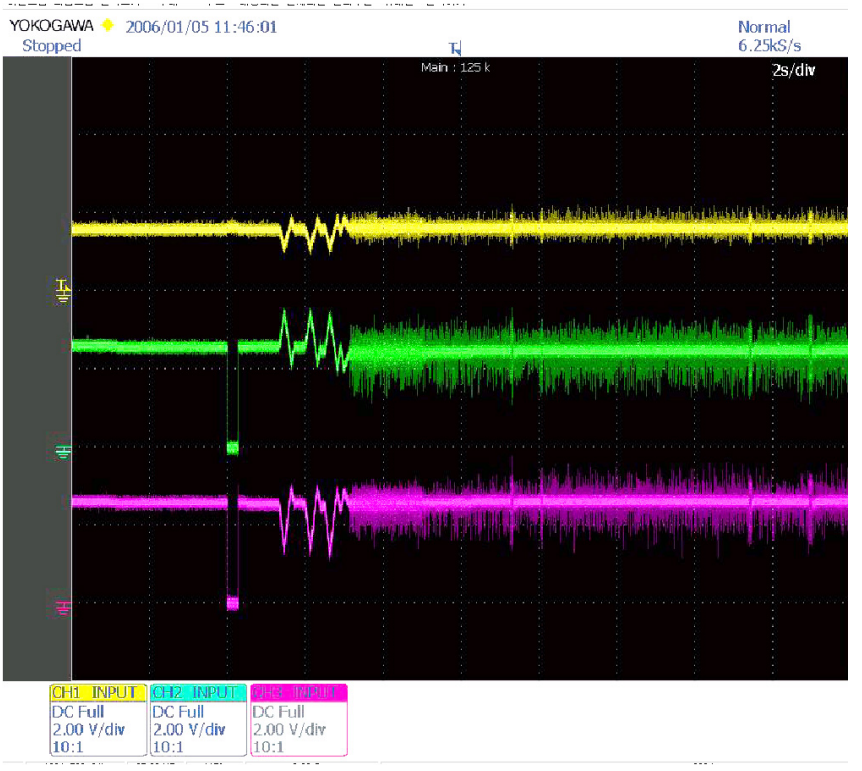
IC501
Playing at USB function
- USB_N:PIN71
- USB_P:PIN73

3. STARTING ACTION WAVEFORM IN MD DEVICE



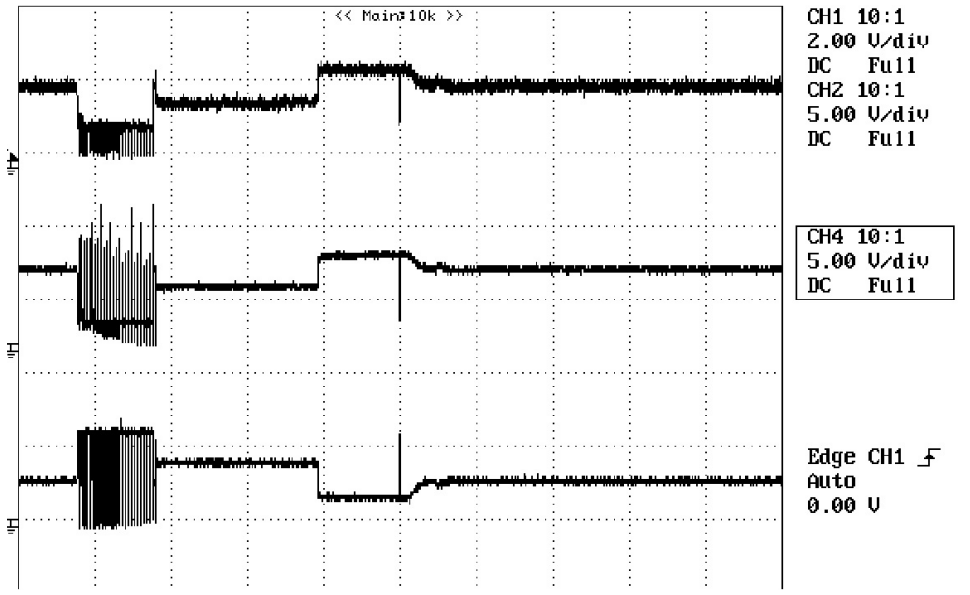
IC401
1. SLO
2. SLED1+ : PIN39
3. SLED2- : PIN38
(At Power on)

4. AT DVD FUNCTION



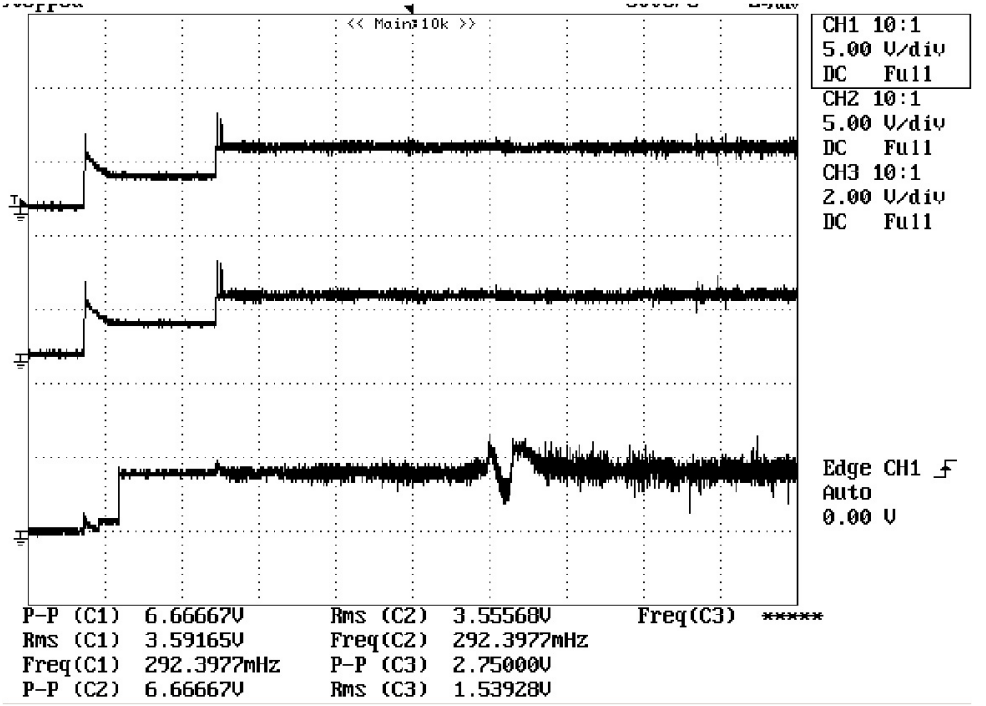
IC401
1. FDO : PIN5
2. F+ : PIN52
3. F- : PIN51
(INSERT DVD)

5. AT POWER ON, SPINDLE SIGNAL AT MD DECK



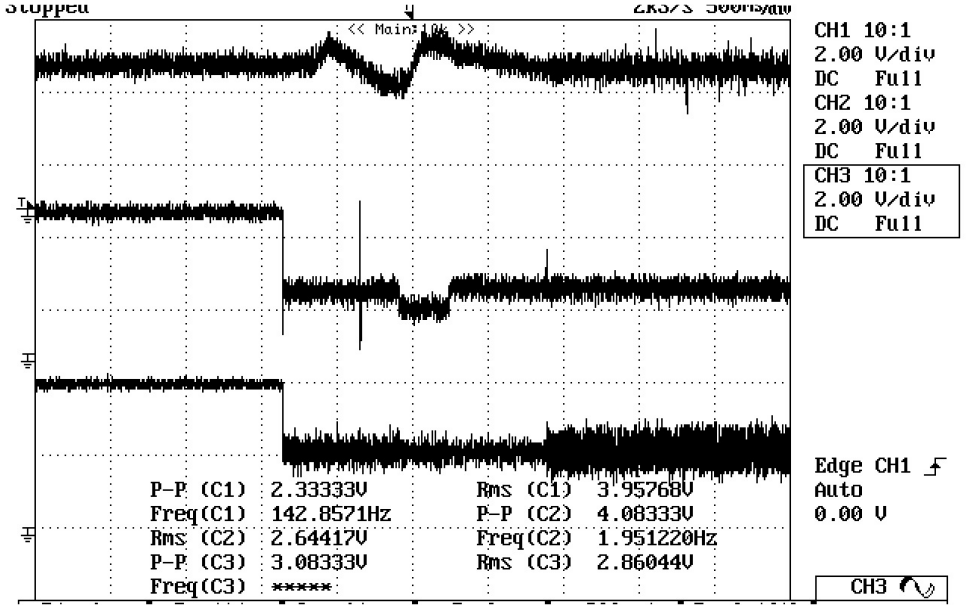
IC401
1. Spin : PIN26
2. Spin+
3. Spin-

6. TRACKING SIGNAL



IC401
1. Tro : PIN4
2. Tr- : PIN53
3. Tr+ : PIN54

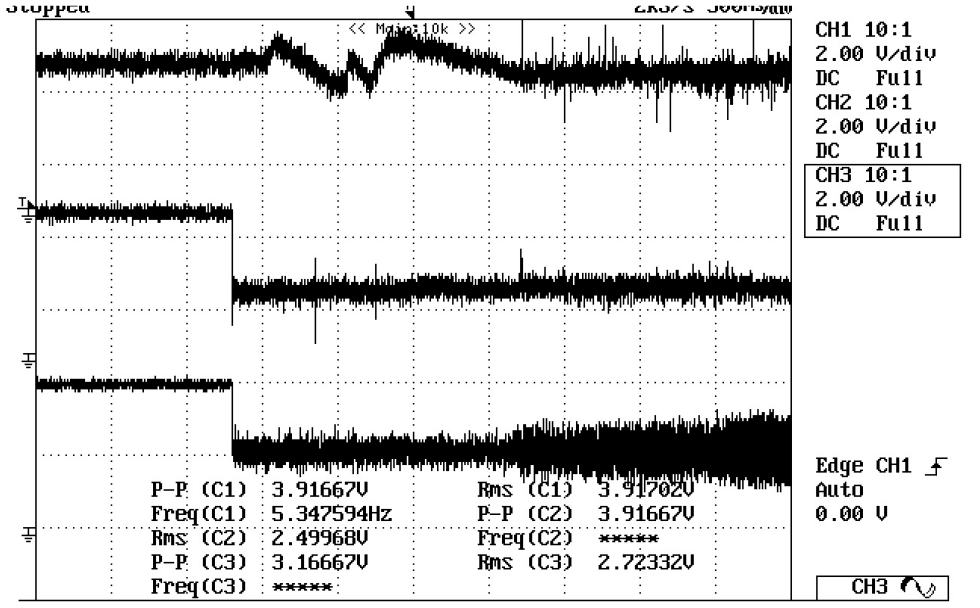
7. DISK TYPE JUGEMENT WAVEFORM



(DVD)

IC401

1. F- : PIN51
2. FDO : PIN5
3. SVREF : PIN28

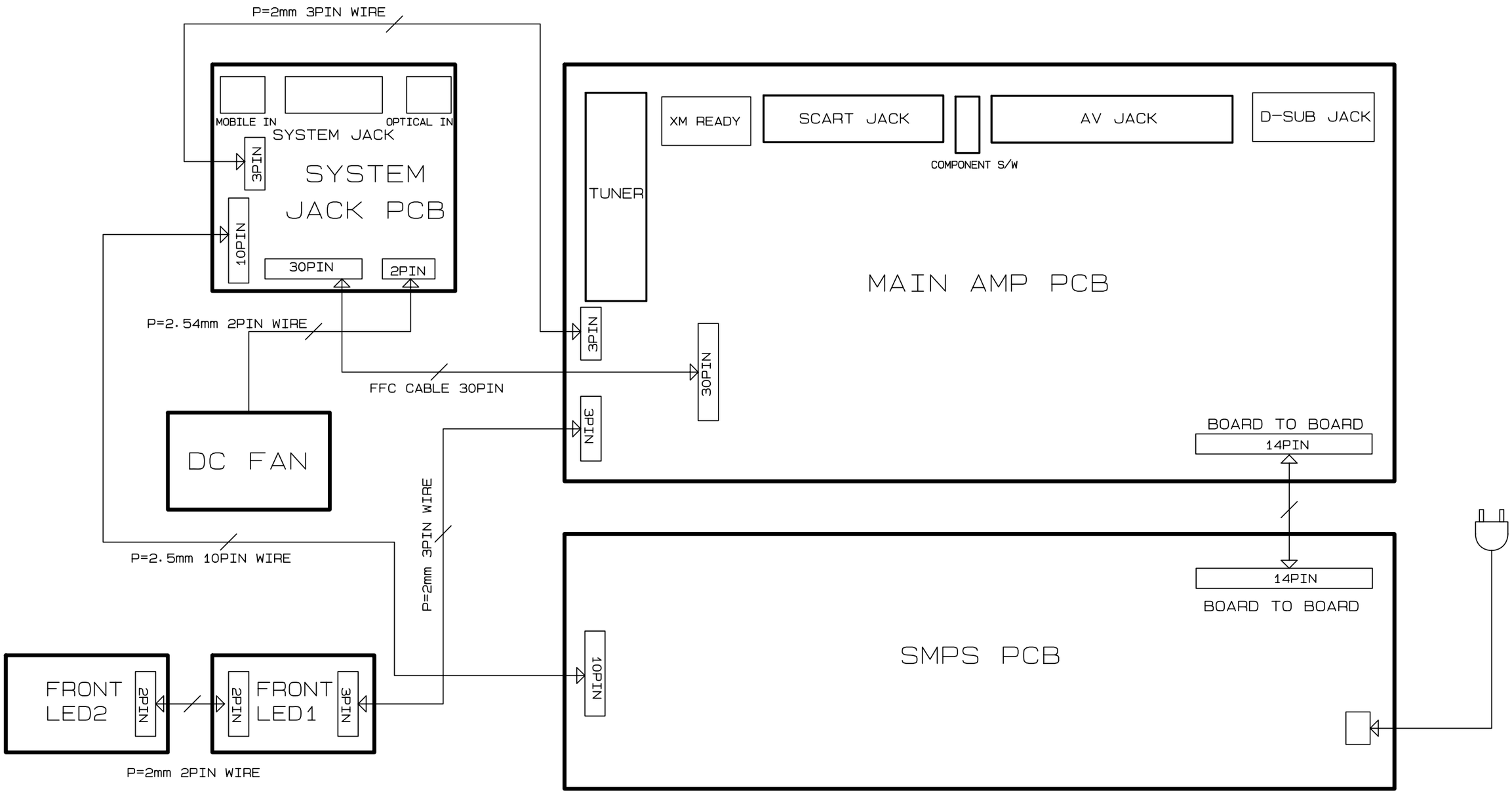


(CD)

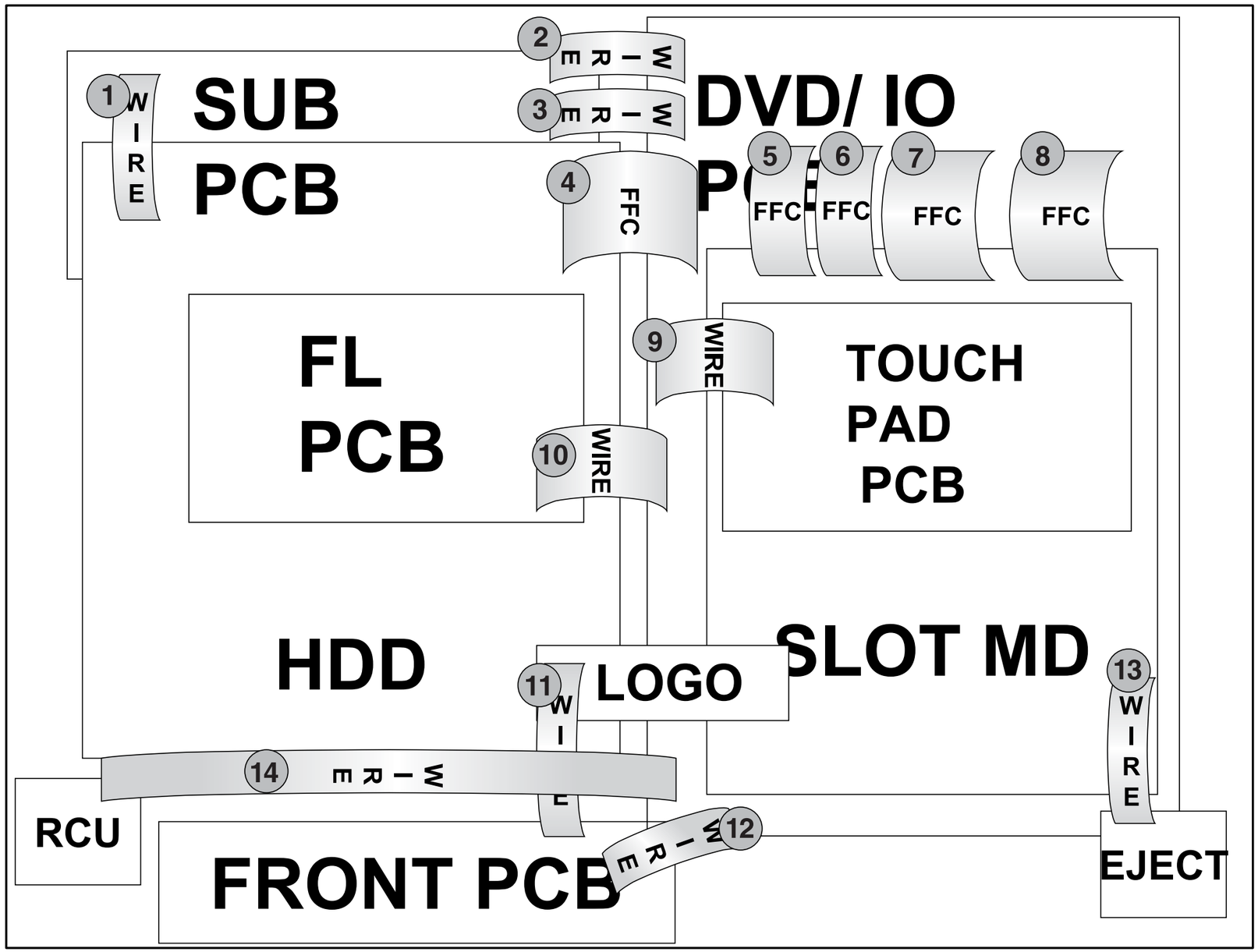
MEMO

WIRING DIAGRAMS

1. ACTIVE SUBWOOFER WIRING DIAGRAM



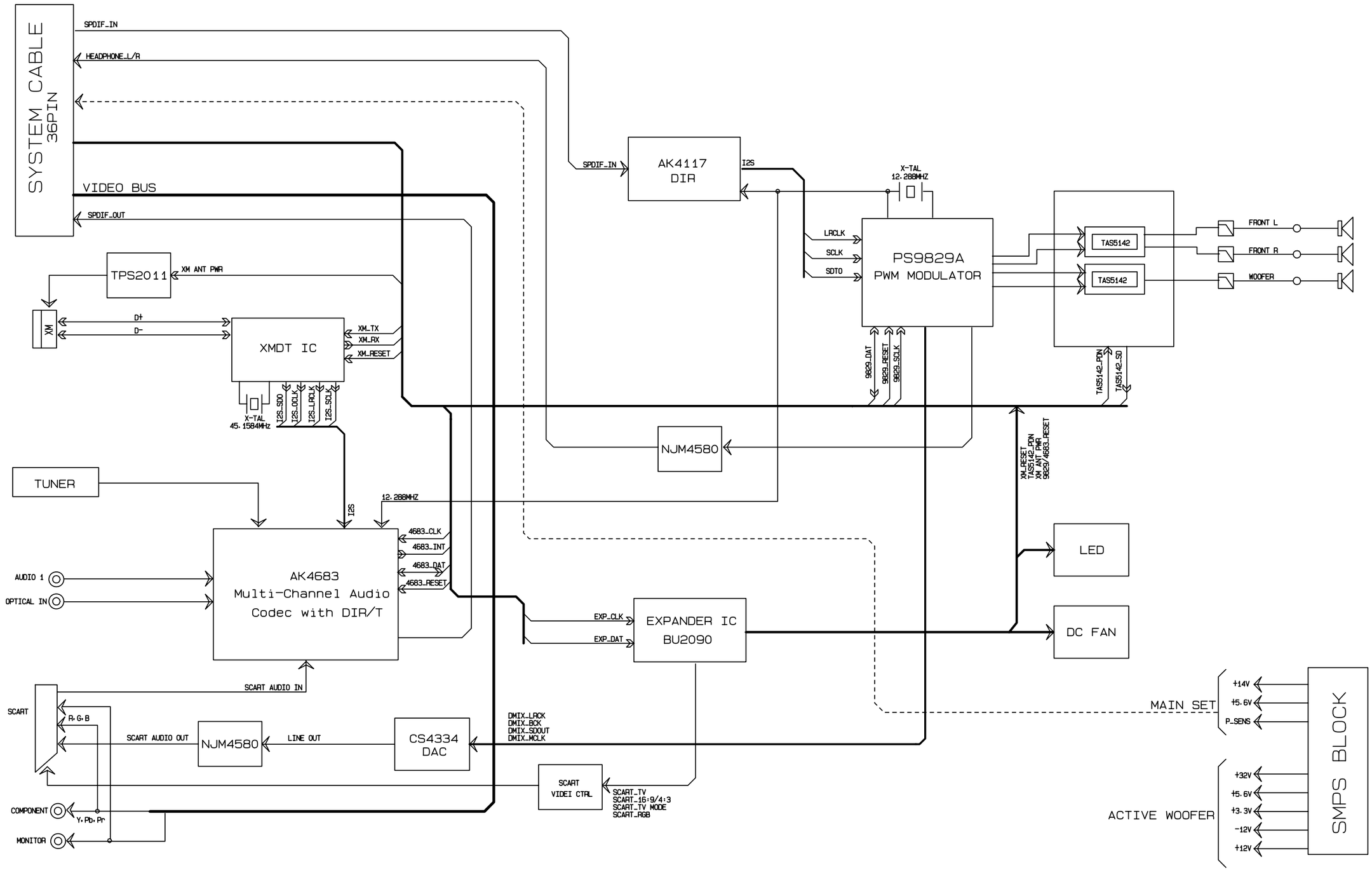
2. MAIN SYSTEM WIRING DIAGRAM



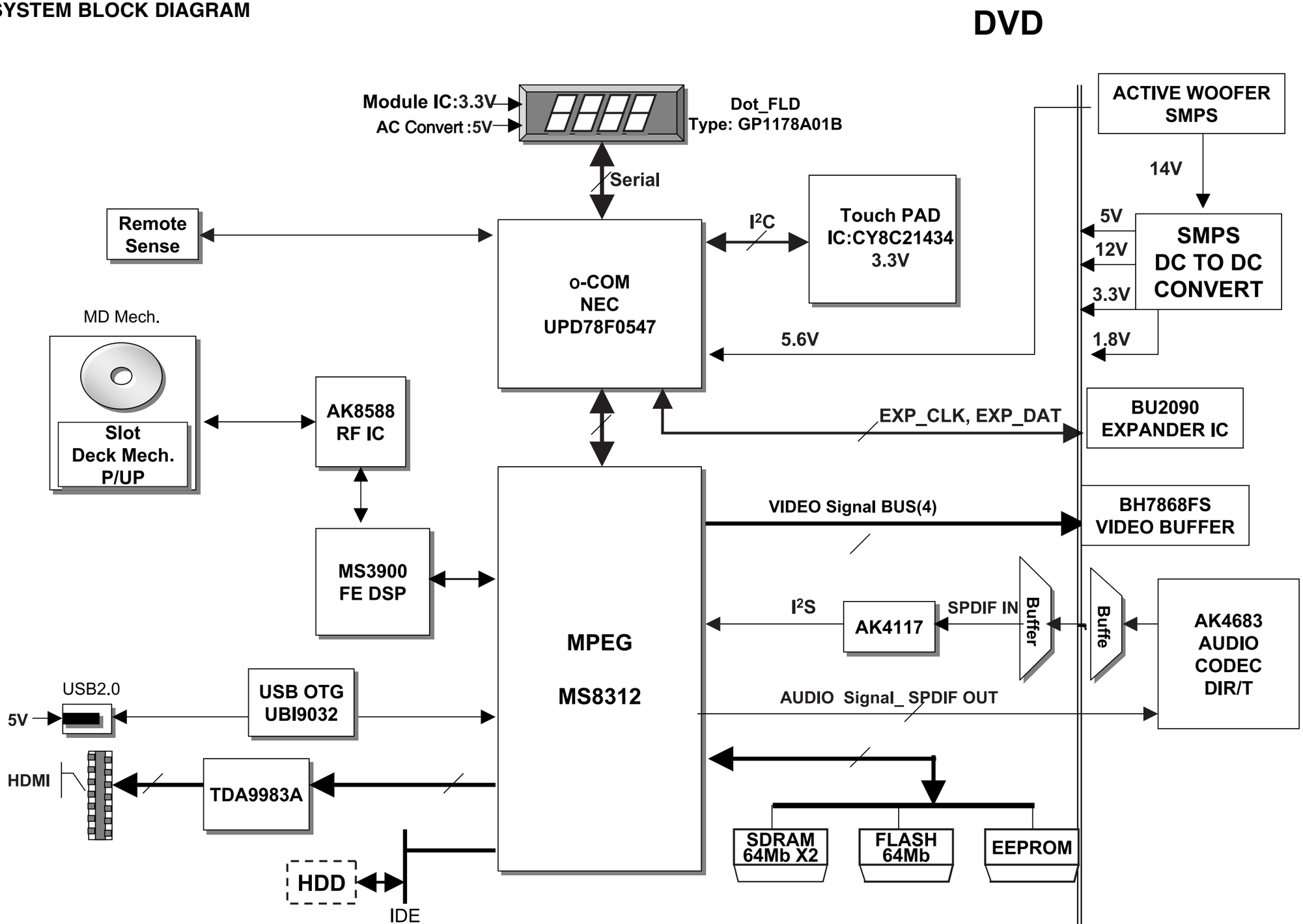
No.	LOCA. NO.	SPECIFICATION	REMARKS
1	CABLE2	4Pin Harness Connector	HDD PWR Connector
2	P201	6Pin Harness Connector	PWR Connector
3	P202	13Pin Harness Connector	PWR Connector
4	CABLE3	40Pin FFC Connector	HDD Data Connector
5	022(Motor, DC)	4Pin FFC Connector	MD Data Connector
6	002(Lever, FFC)	5FFC Connector	MD Data Connector
7	A30(Base Ass'y)	13 FFC Connector	MD Data Connector
8	019(Cable, FFC)	23 FFC Connector	MD Data Connector
9	CN109	5Pin Harness Connector	Touch PAD ⟷ Main PCB
10	CABLE4	20Pin Harness Connector	Graphic FL ⟷ Main PCB
11	CN304	5Pin Harness Connector	Key PCB ⟷ Logo PCB
12	CN106	8Pin Harness Connector	Key PCB ⟷ Main PCB
13	CN307	2Pin Harness Connector	Open PCB ⟷ Main PCB
14	CN308	3Pin Harness Connector	RCU PCB ⟷ Main PCB

BLOCK DIAGRAMS

1. ACTIVE SUBWOOFER BLOCK DIAGRAM

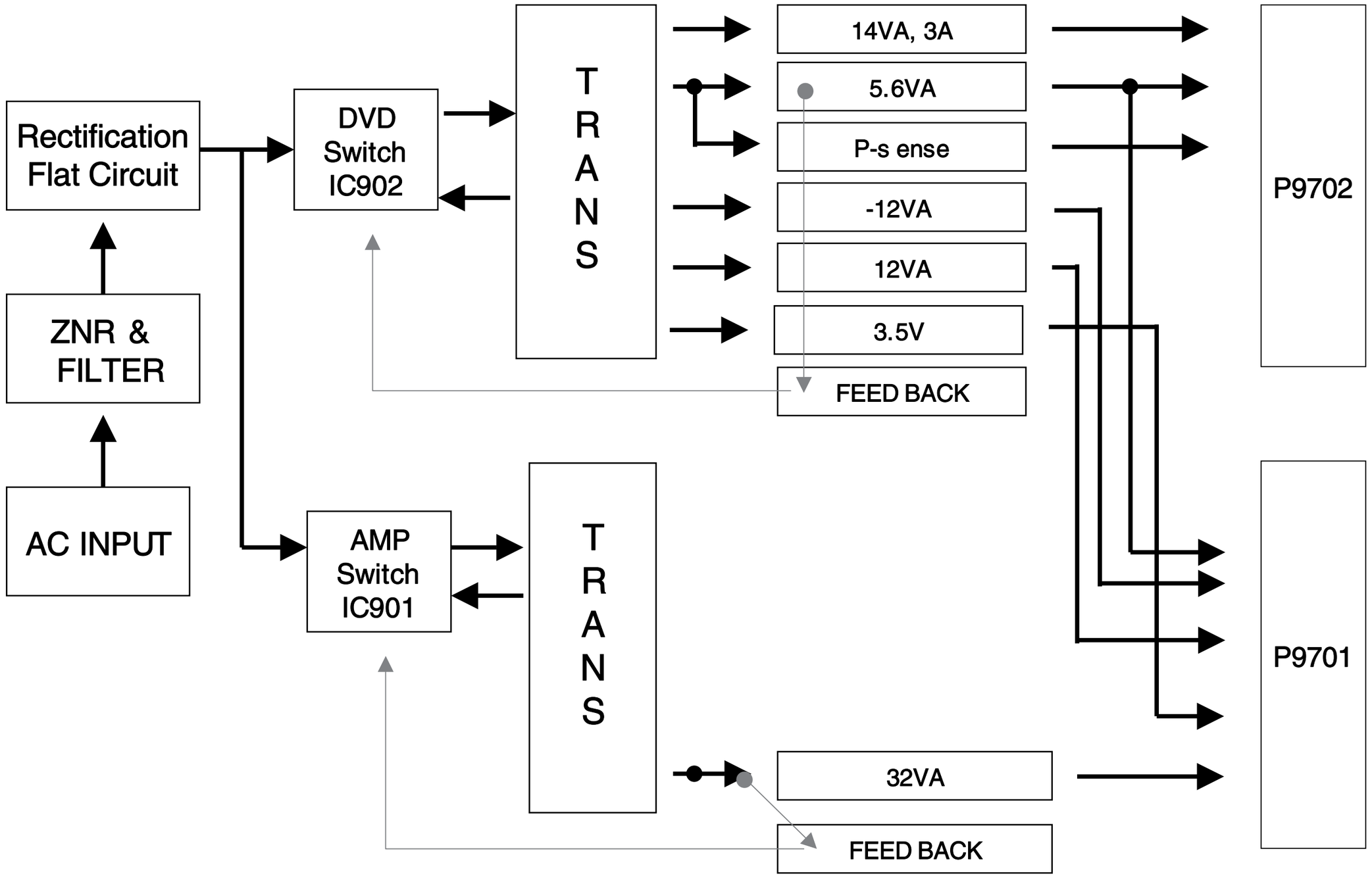


2. MAIN SYSTEM BLOCK DIAGRAM

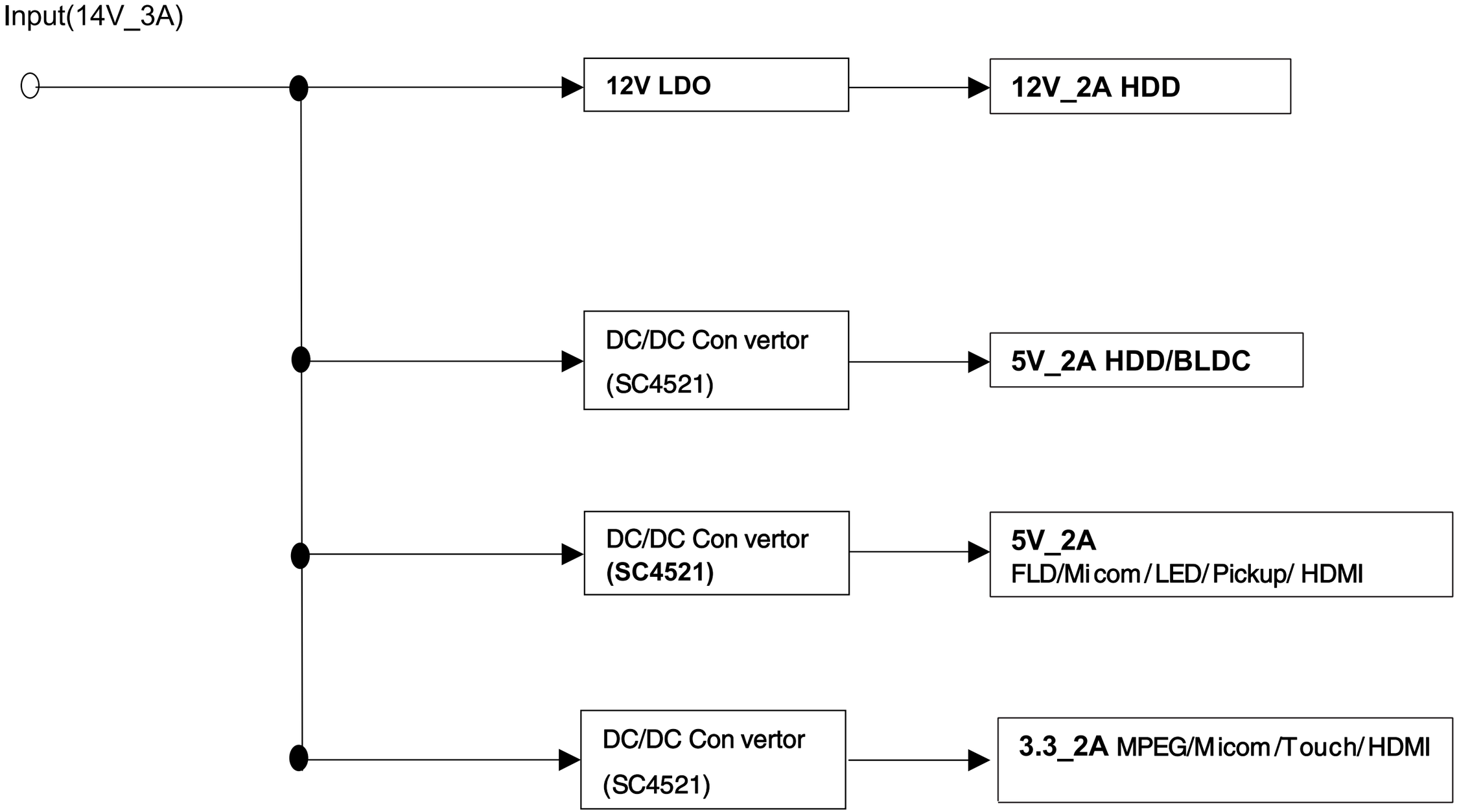


3. DC/DC SMPS BLOCK DIAGRAM

Power Part



4. DC/DC CONVERTER BLOCK DIAGRAM



CIRCUIT DIAGRAMS

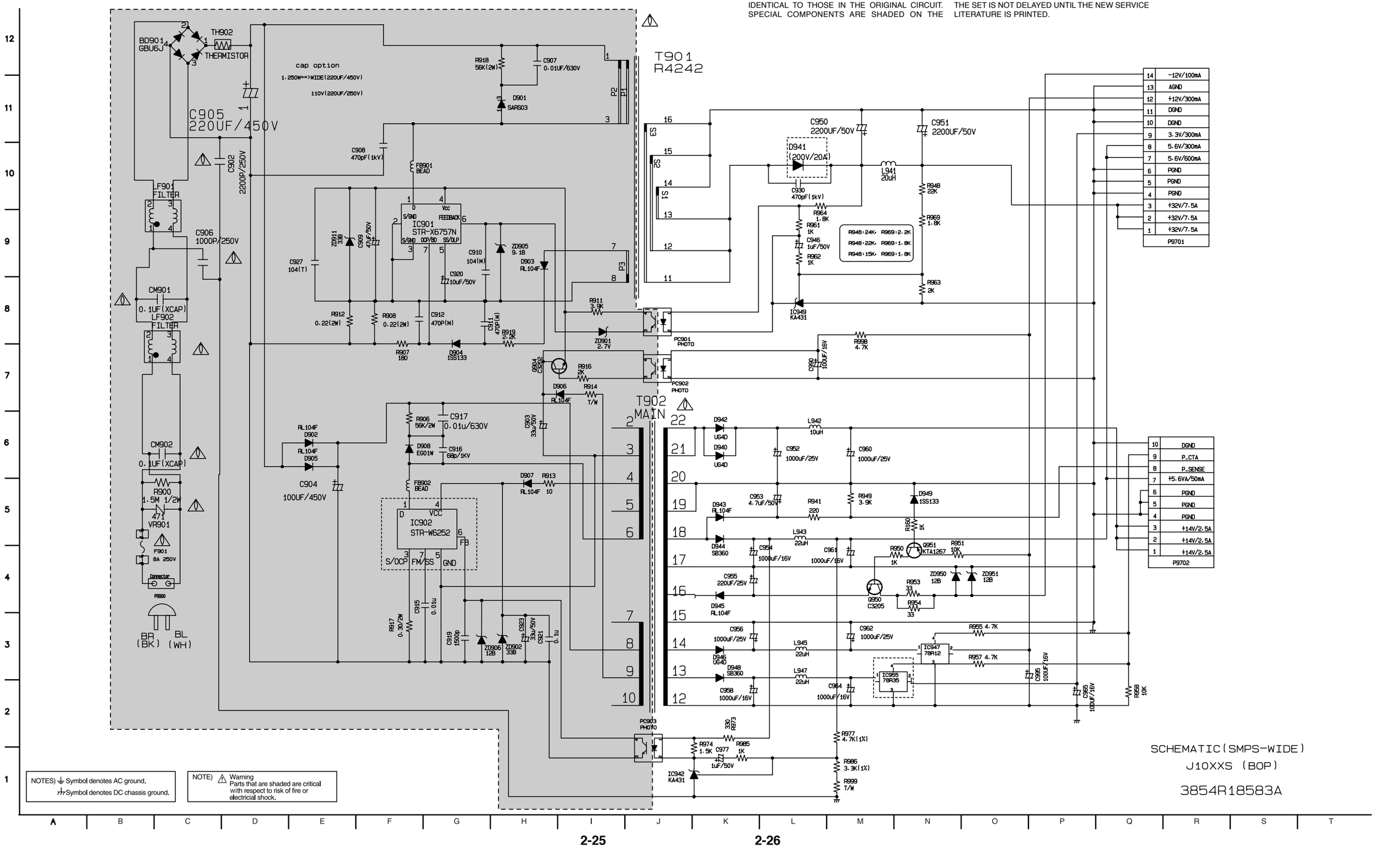
1. SMPS (POWER) CIRCUIT DIAGRAM

IMPORTANT SAFETY

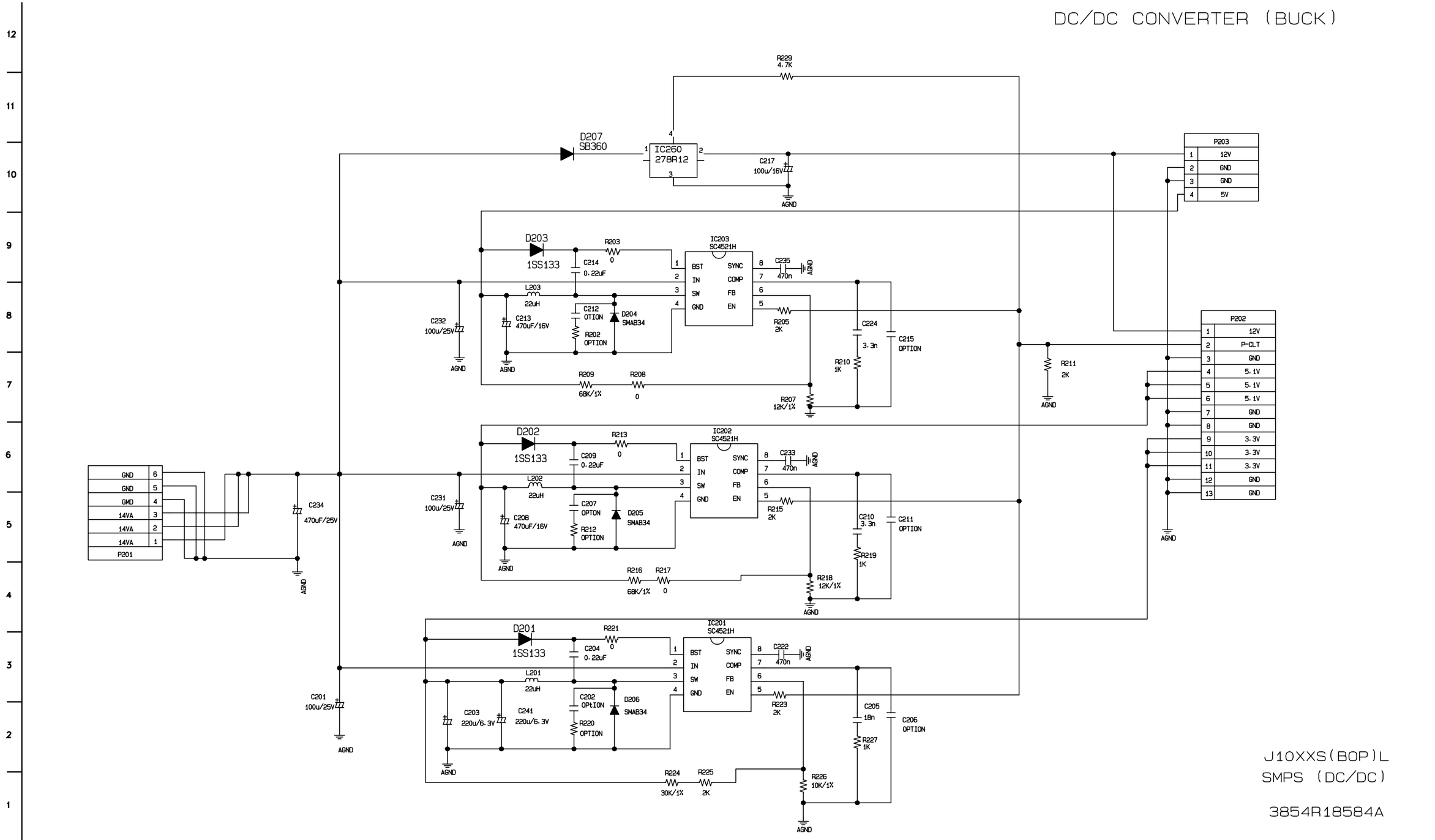
WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE LG CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIRCUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

NOTE :

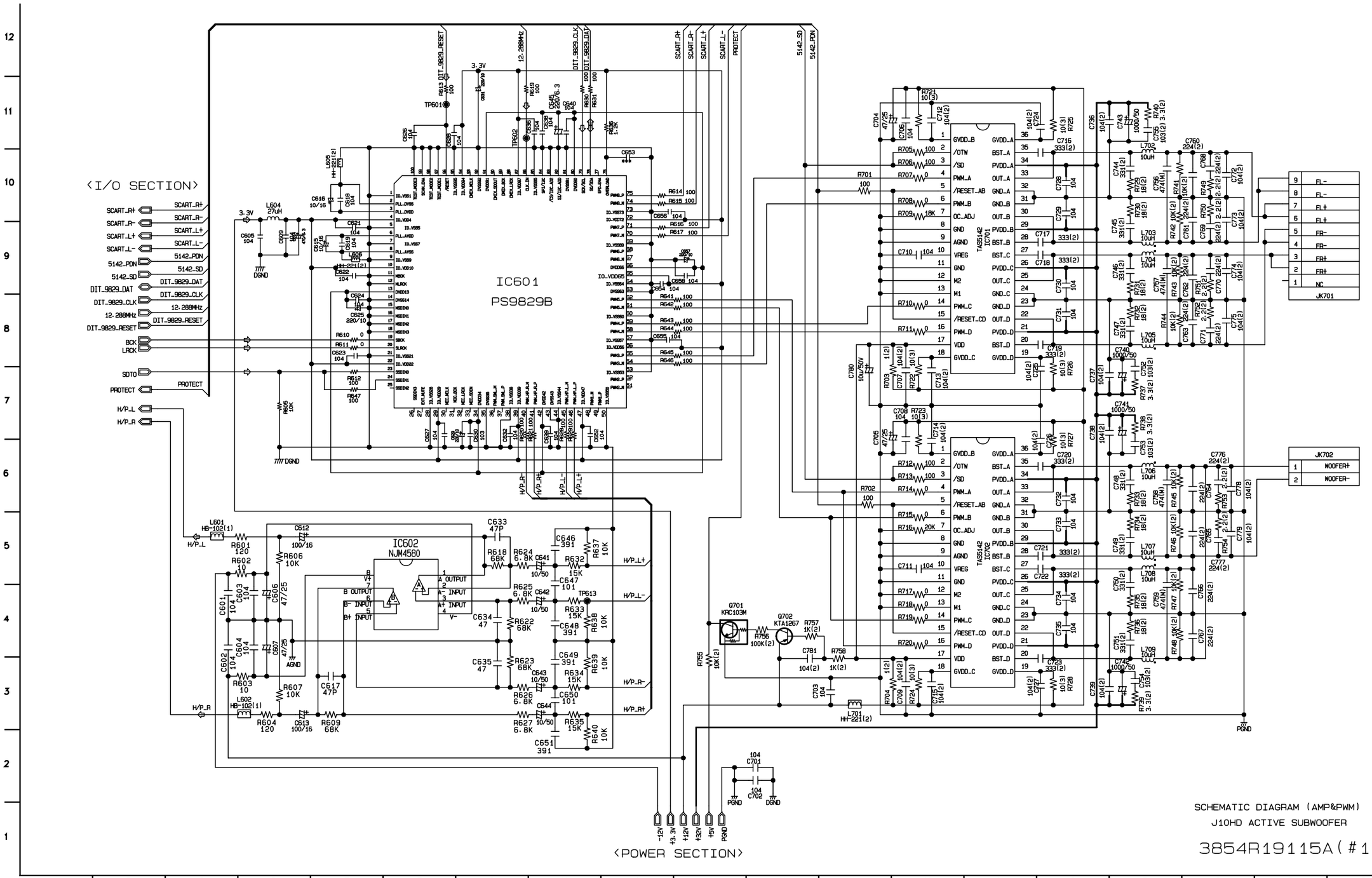
1. Shaded(■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.



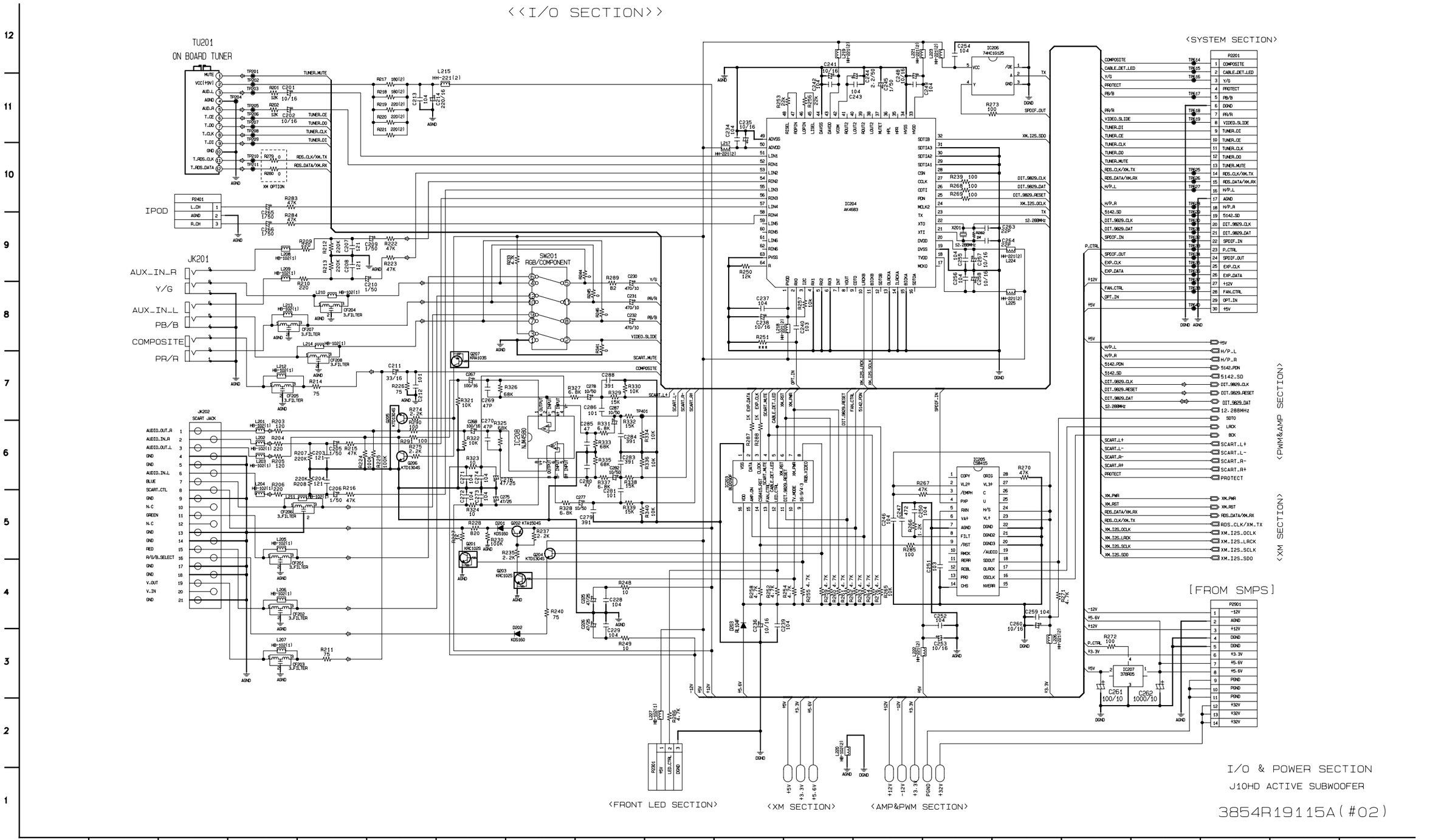
2. SMPS (DC/DC CONVERTER) CIRCUIT DIAGRAM



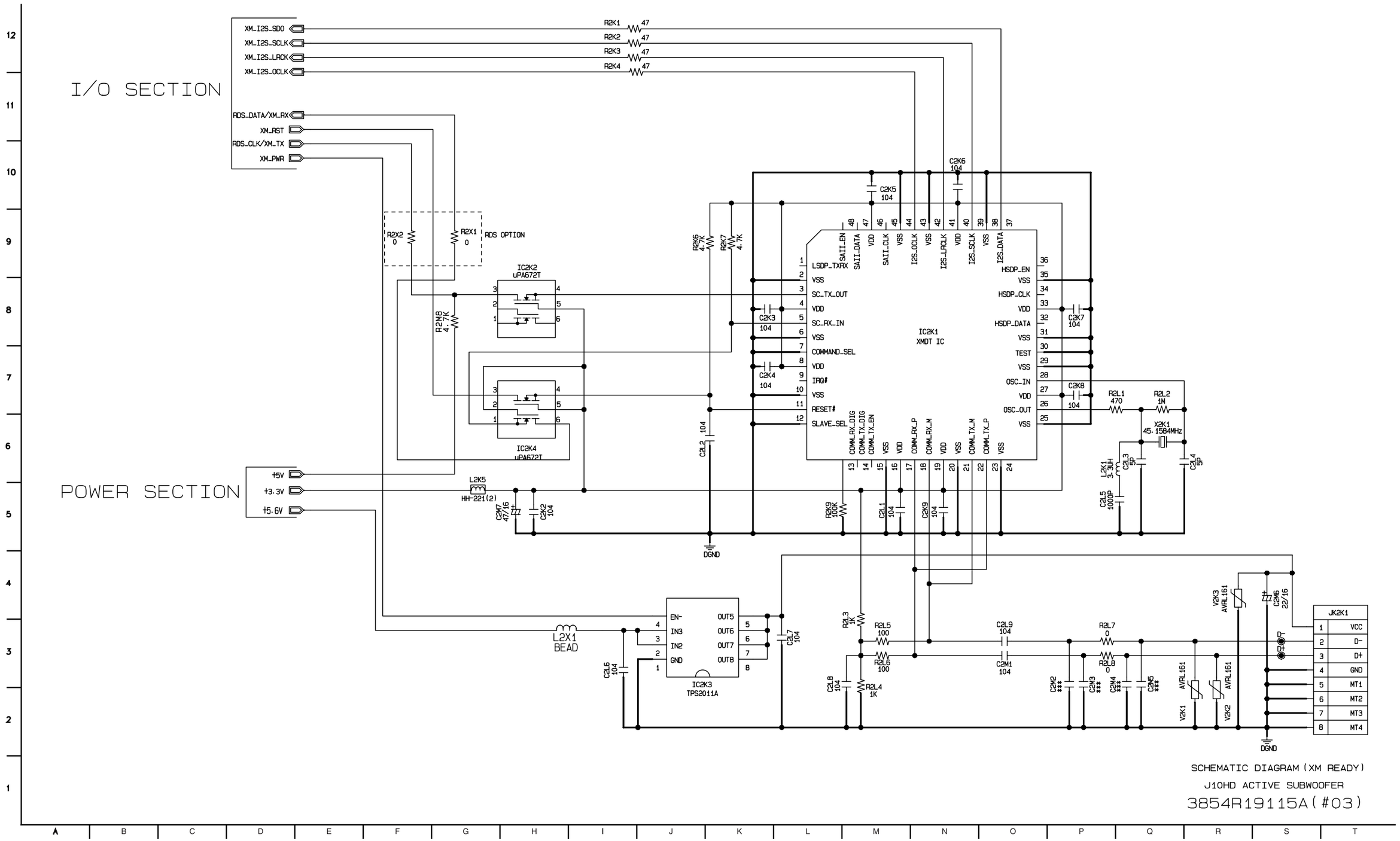
3. AMP & PWM CIRCUIT DIAGRAM



4. I/O & POWER CIRCUIT DIAGRAM



5. XM READY CIRCUIT DIAGRAM

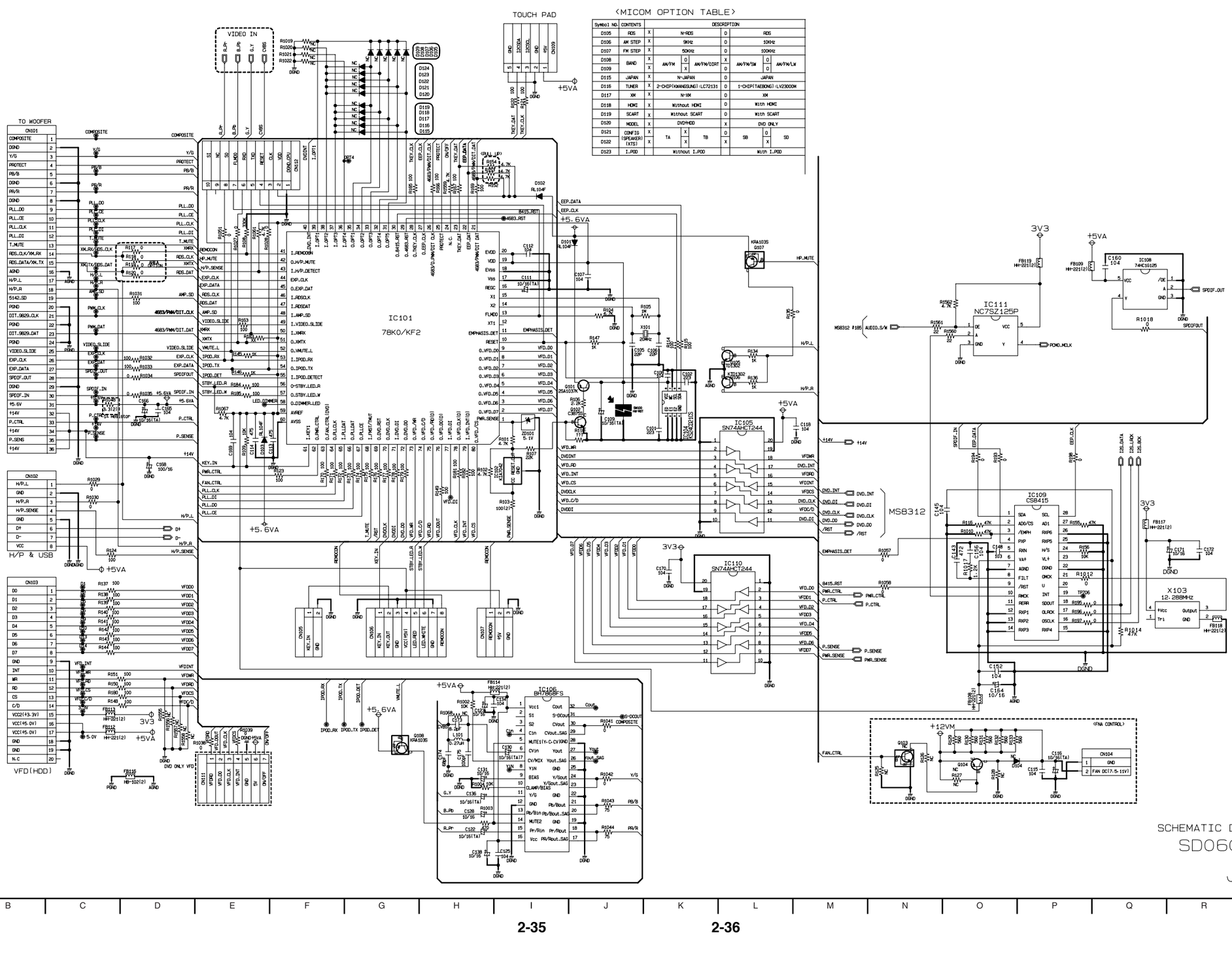


SCHEMATIC DIAGRAM (XM READY)

J10HD ACTIVE SUBWOOFER

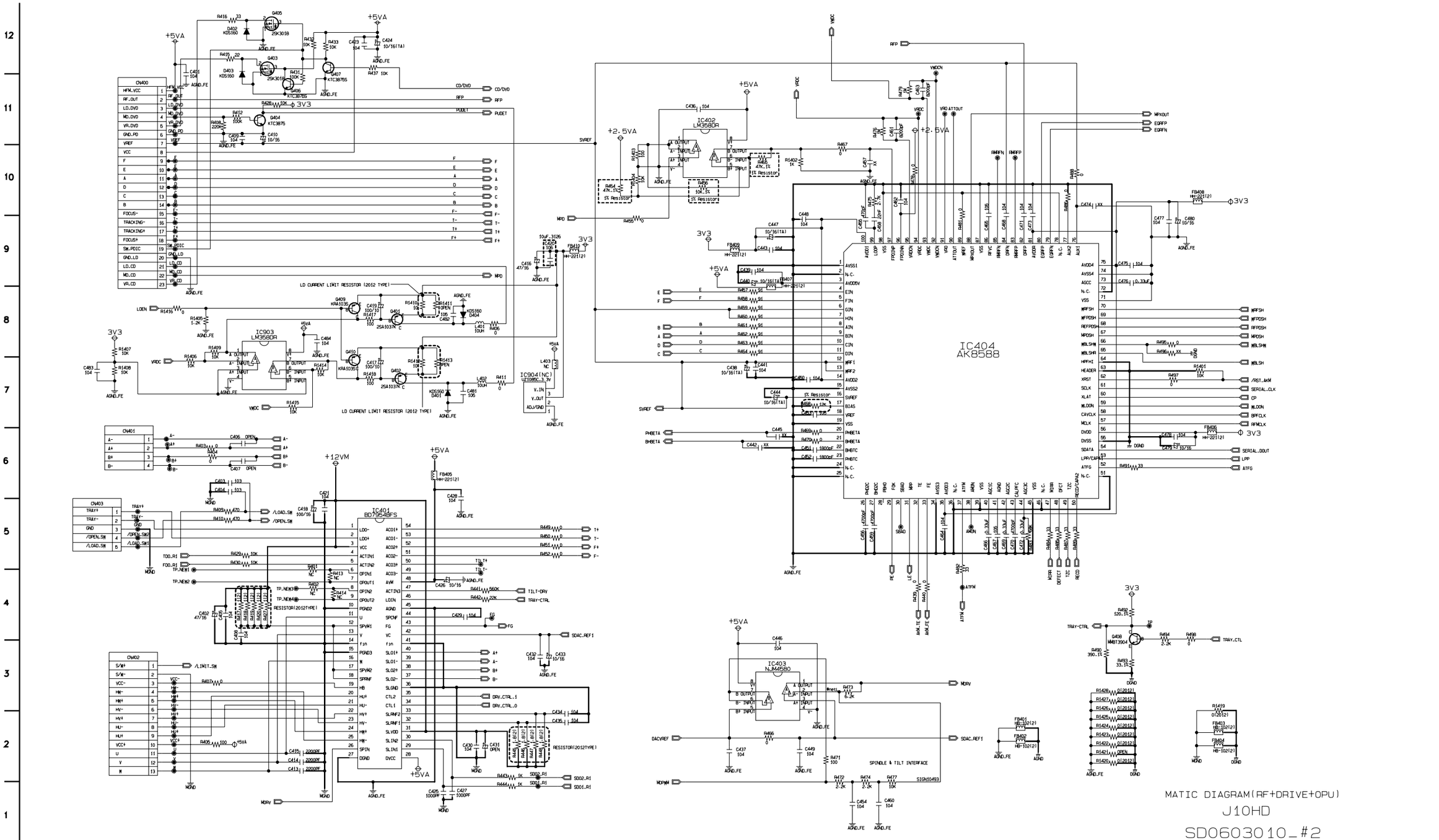
3854R19115A(#03)

6. μ-COM (MAIN) CIRCUIT DIAGRAM

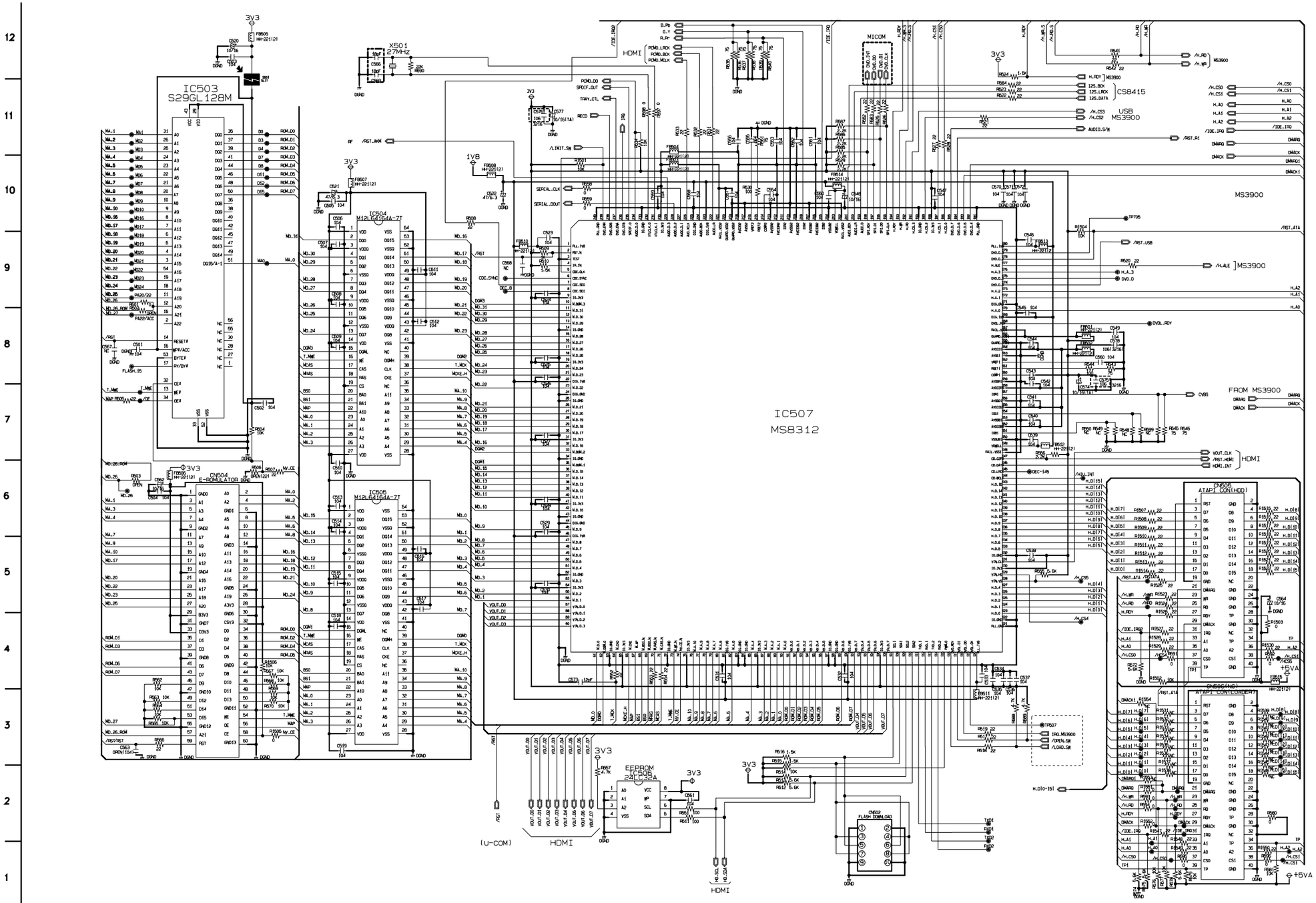


Symbol NO.	CONTENTS	DESCRIPTION					
D105	RDS	X	N-RDS	0	RDS		
D106	AM STEP	X	9KHz	0	10KHz		
D107	FM STEP	X	50KHz	0	100KHz		
D108	BAND	X	AM/FM	0	AM/FM/DIRT	X	AM/FM/SW	0	AM/FM/LW
D109		X		X		0		0	
D115	JAPAN	X	N-JAPAN	0	JAPAN		
D116	TUNER	X	2-CHIP(KWANGSUNG) LC72131	0	1-CHIP(TAEBONG) LV23000M		
D117	XM	X	N-XM	0	XM		
D118	HDMI	X	Without HDMI	0	With HDMI		
D119	SCART	X	Without SCART	0	With SCART		
D120	MODEL	X	DVD+HDD	X	DVD ONLY		
D121	CONFIG (SPEAKER) (NTS)	X	TA	X	TB	0	SB	0	SD
D122		X		X		X		X	
D123	I_POD		Without I_POD		With I_POD		

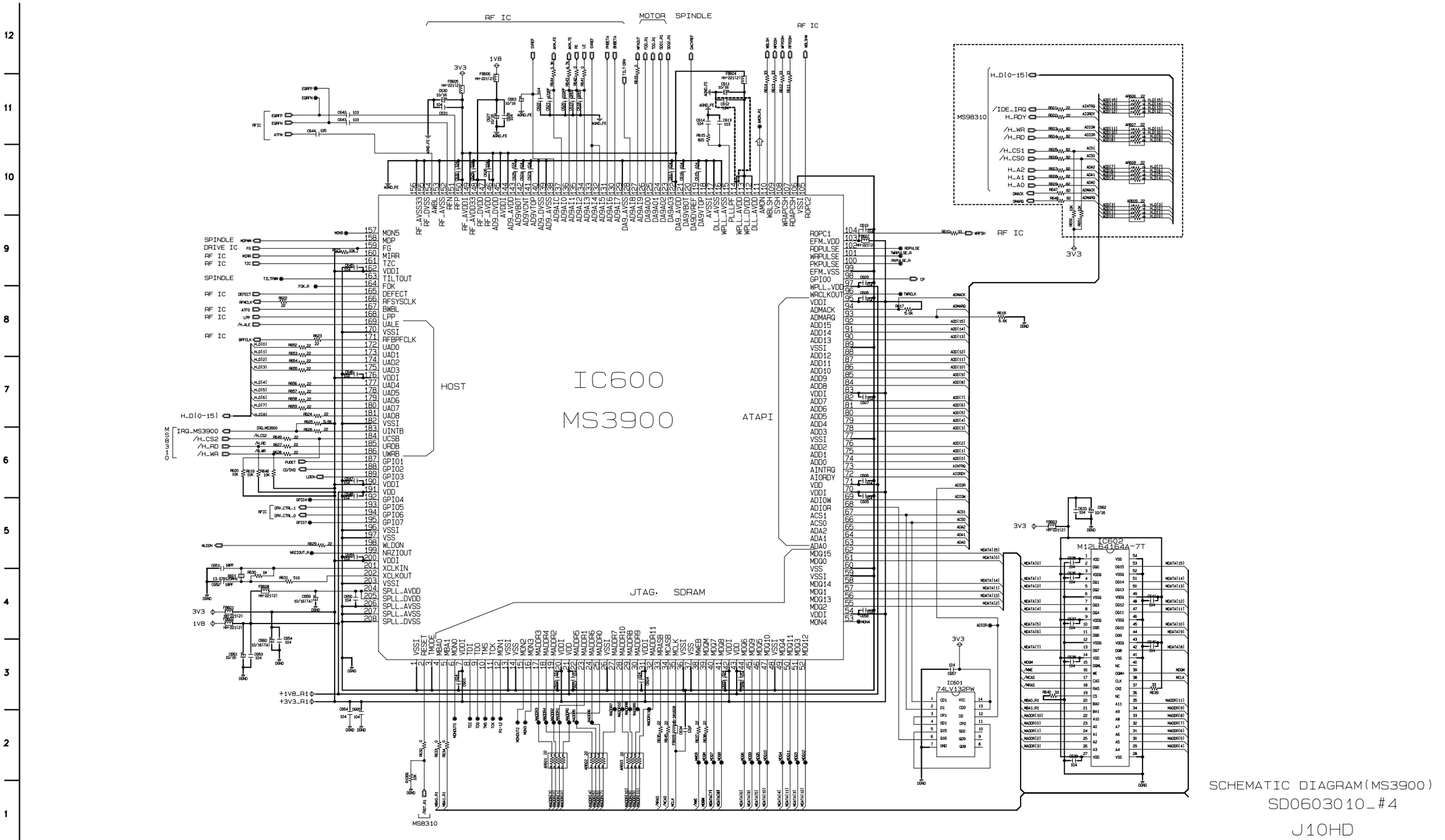
7. RF, DRIVE & OPU CIRCUIT DIAGRAM



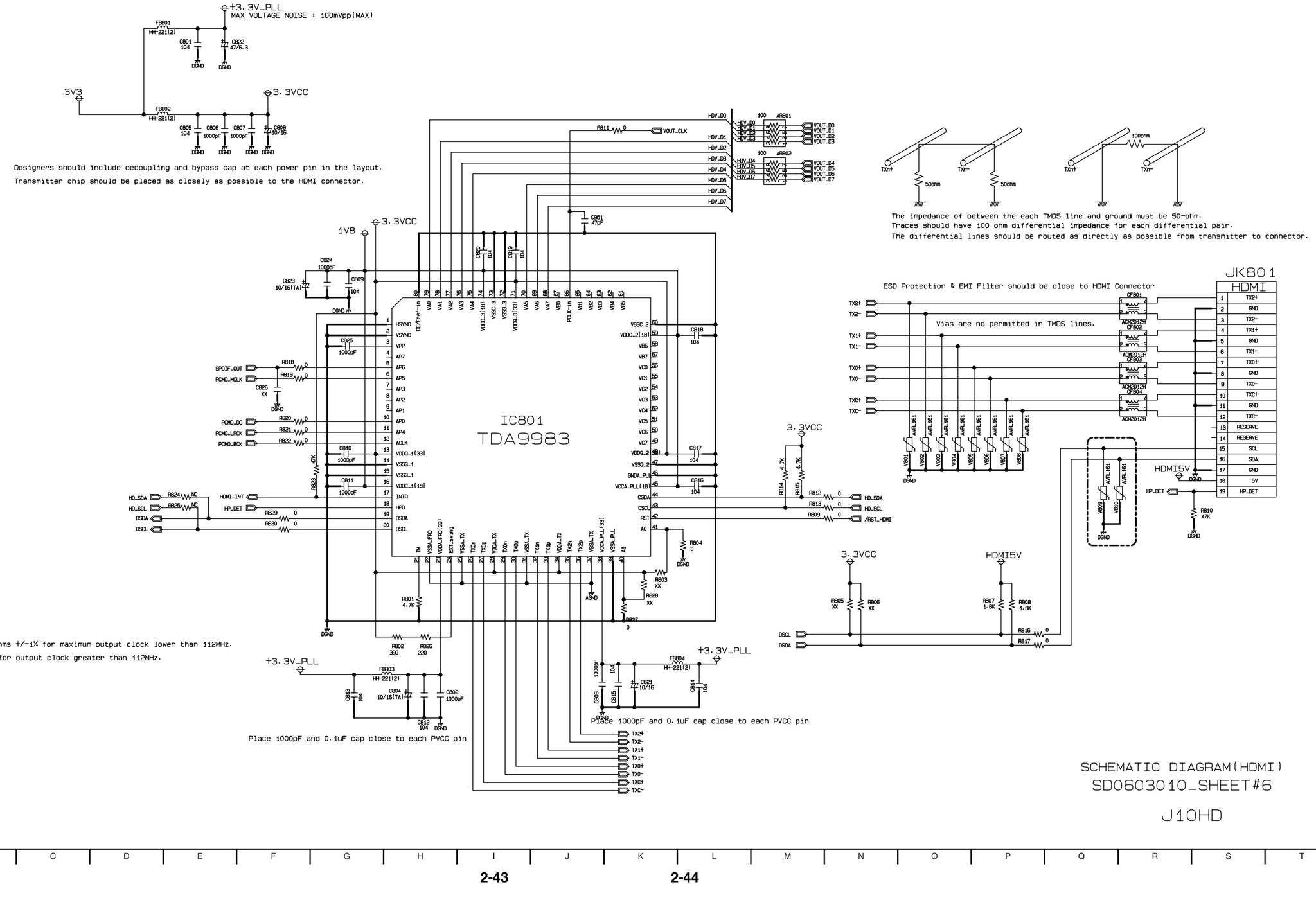
8. MPEG CIRCUIT DIAGRAM



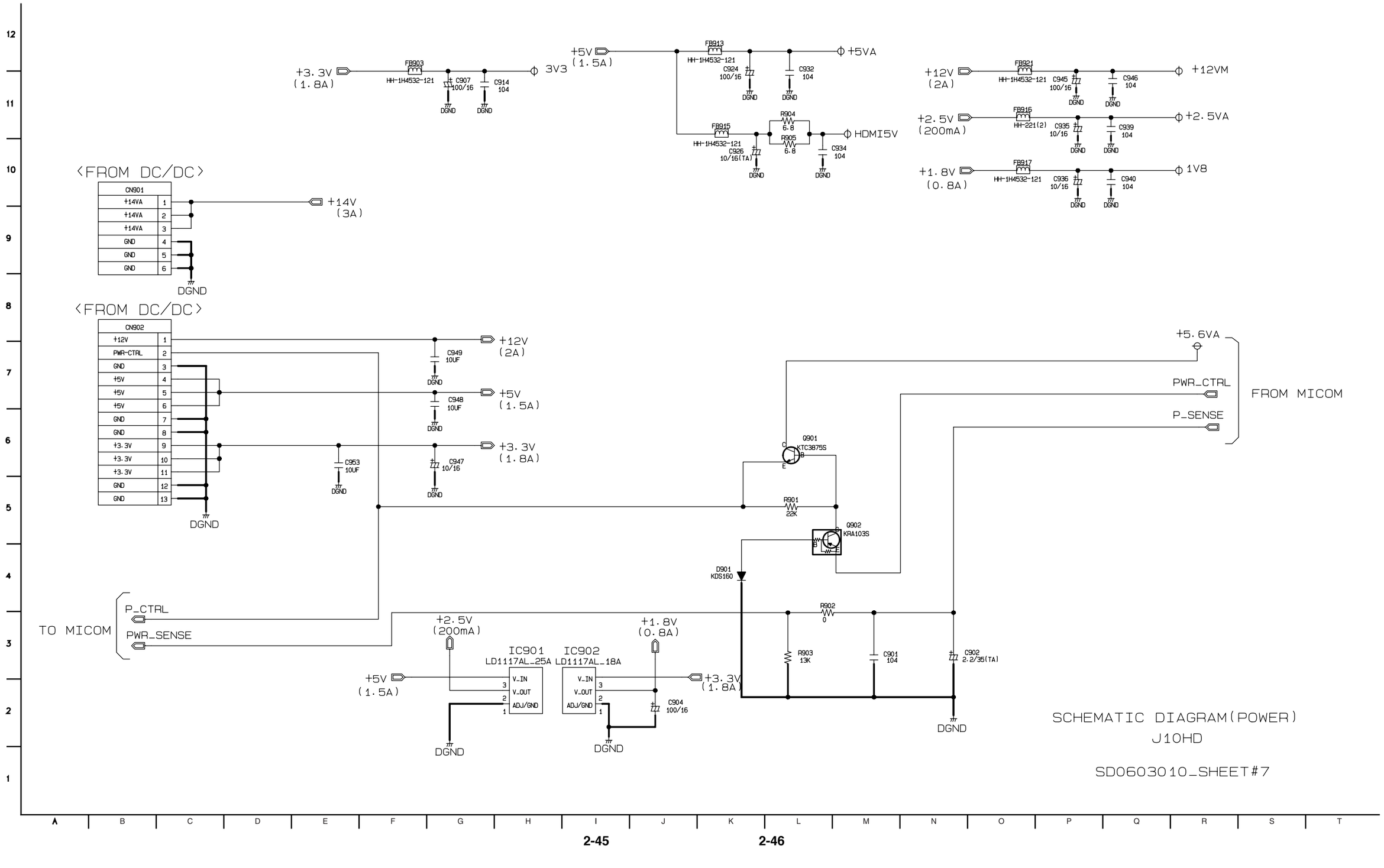
9. DSP (MS3900) CIRCUIT DIAGRAM



10. HDMI CIRCUIT DIAGRAM



11. POWER INTERFACE CIRCUIT DIAGRAM

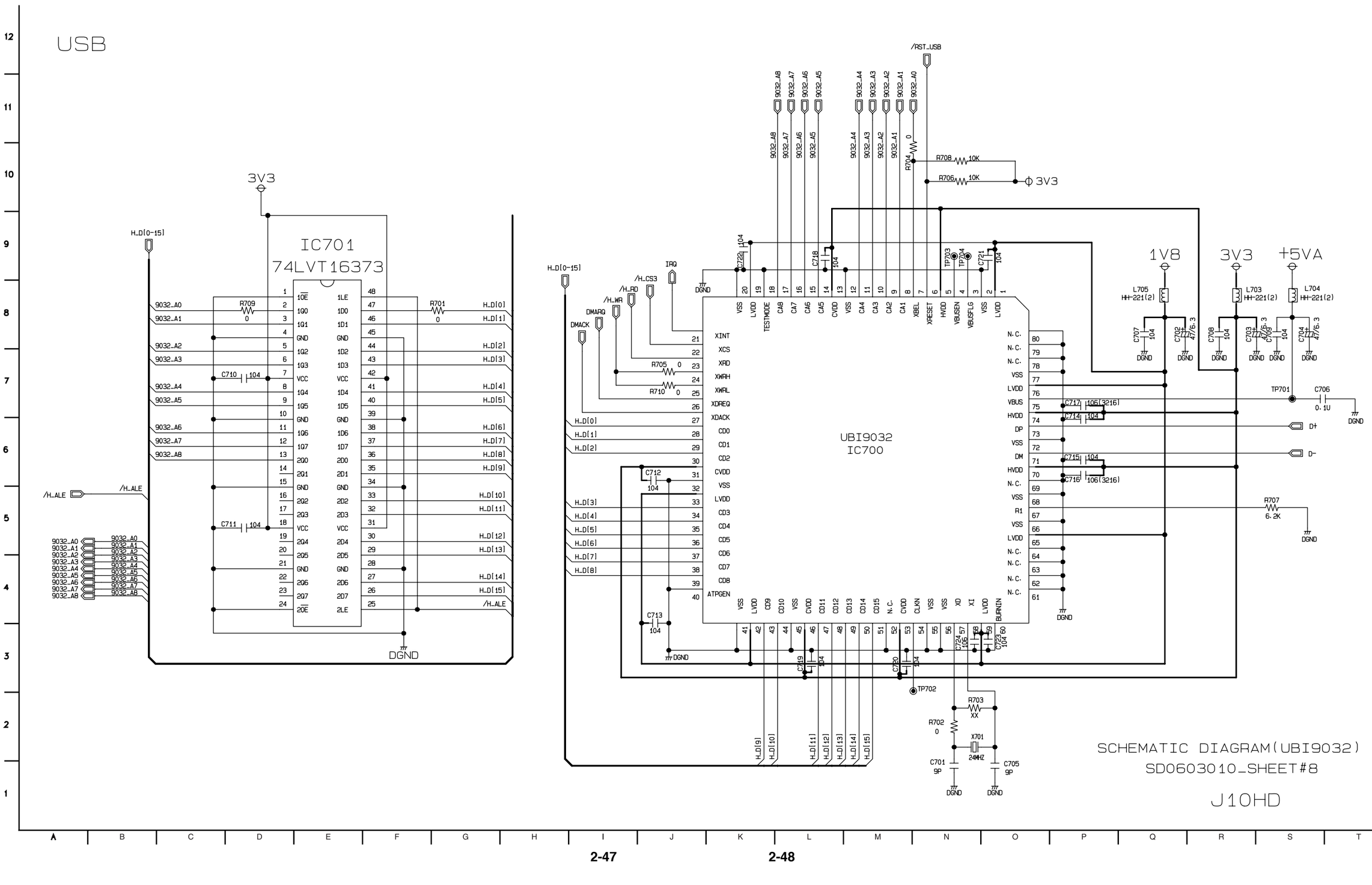


SCHEMATIC DIAGRAM(POWER)

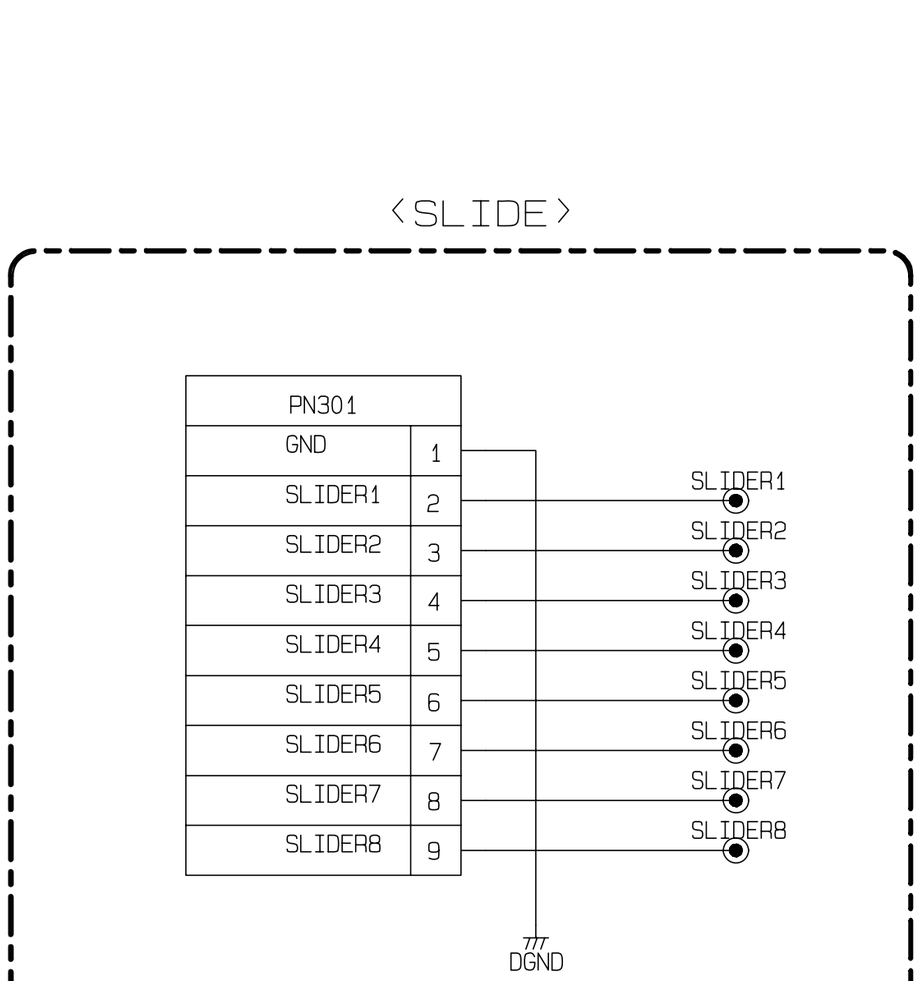
J10HD

SD0603010_SHEET#7

12. USB CIRCUIT DIAGRAM



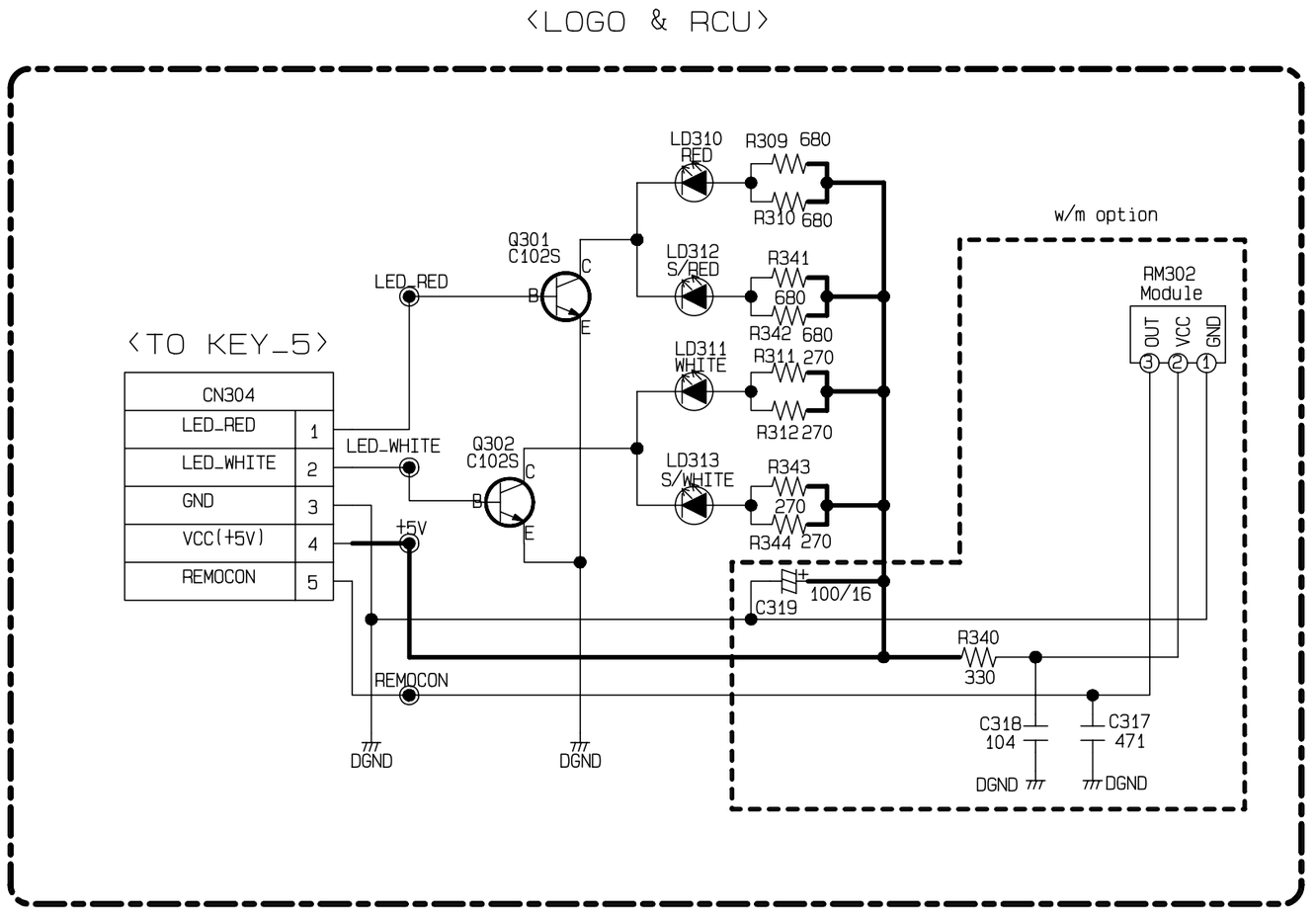
13. T-SLIDE CIRCUIT DIAGRAM



SCHEMATIC DIAGRAM(T-SLIDE)
SD0603091_SHEET#1

J10HD

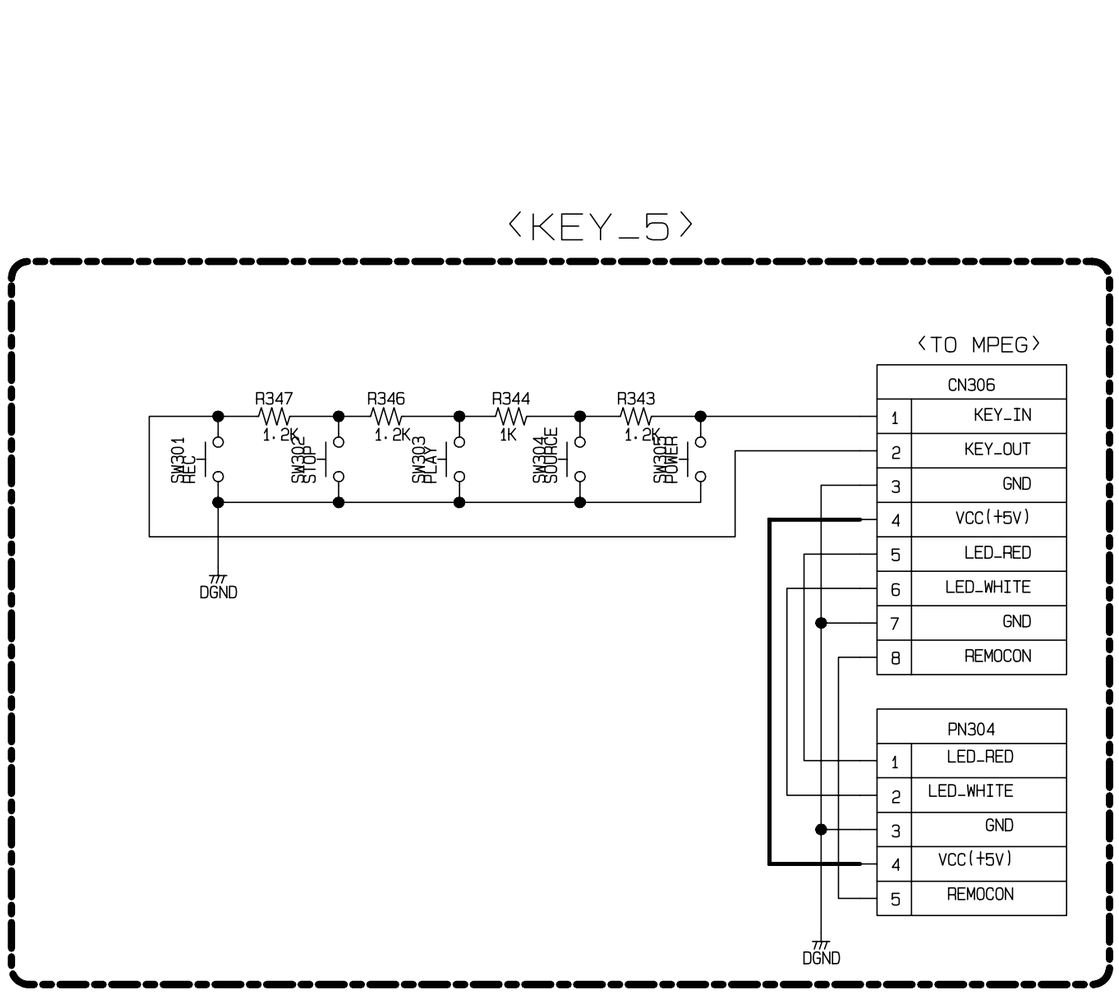
14. LOGO & RCU CIRCUIT DIAGRAM



SCHEMATIC DIAGRAM(LOGO&RCU)
SD0603092_SHEET#1

J10HD

15. KEY CIRCUIT DIAGRAM

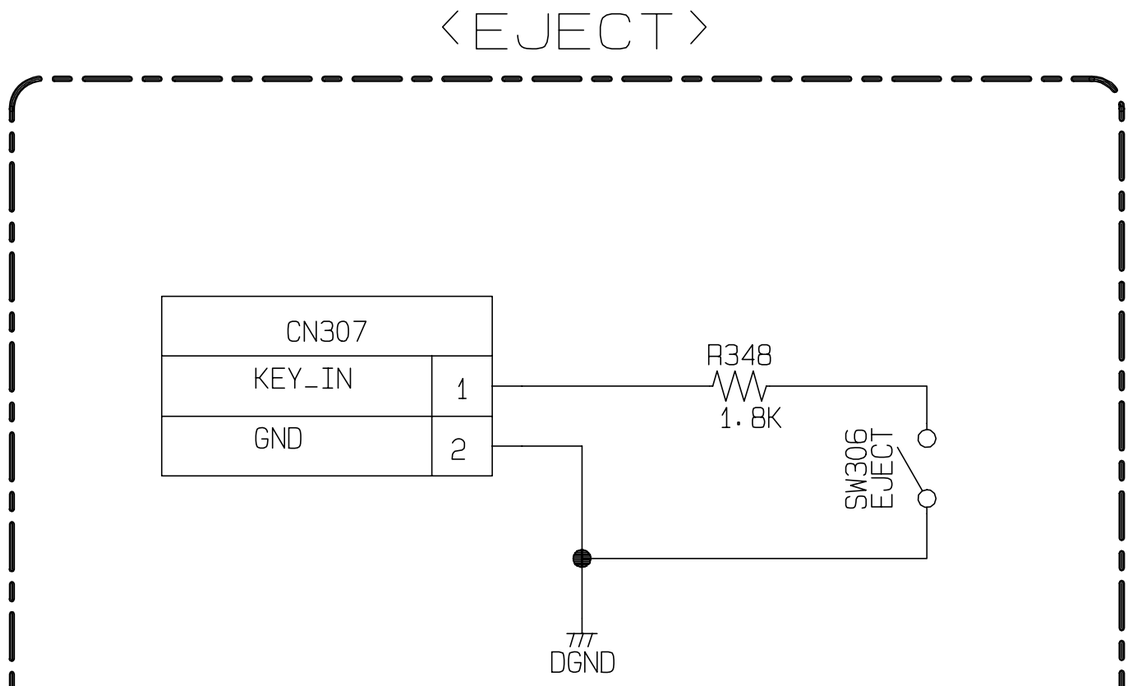


SCHEMATIC DIAGRAM(KEY)

SD0603094_SHEET#1

J10HD

16. EJECT CIRCUIT DIAGRAM

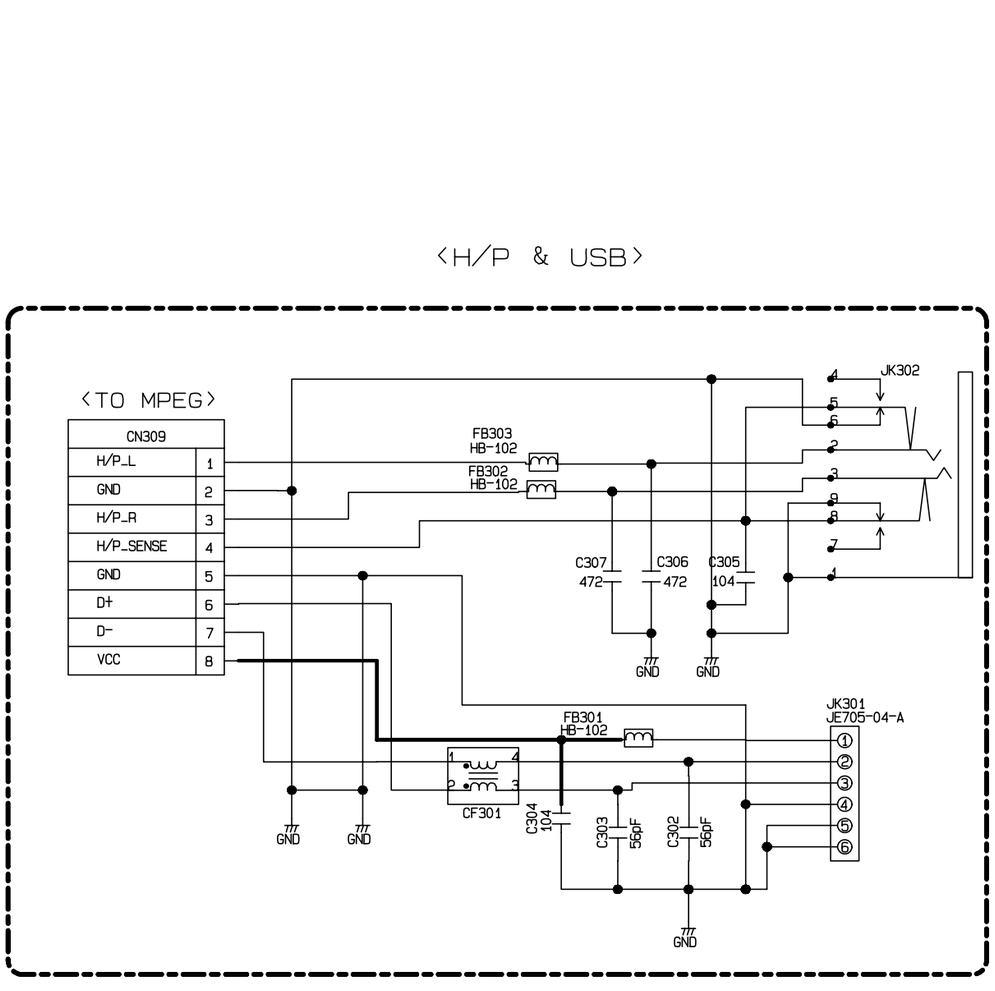


SCHEMATIC DIAGRAM(EJECT)

SD0603095_SHEET#1

J10HD

17. HEADPHONE & USB CIRCUIT DIAGRAM

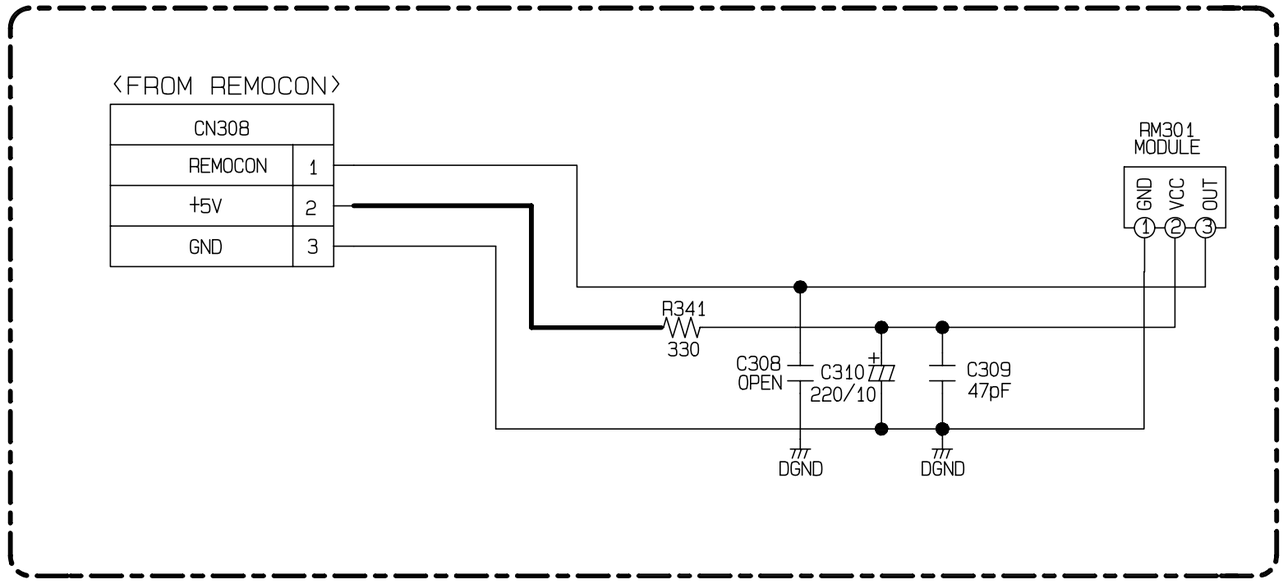


SCHEMATIC DIAGRAM(USB+H/P)

SD0603096_SHEET#1

J10HD

18. RCU CIRCUIT DIAGRAM

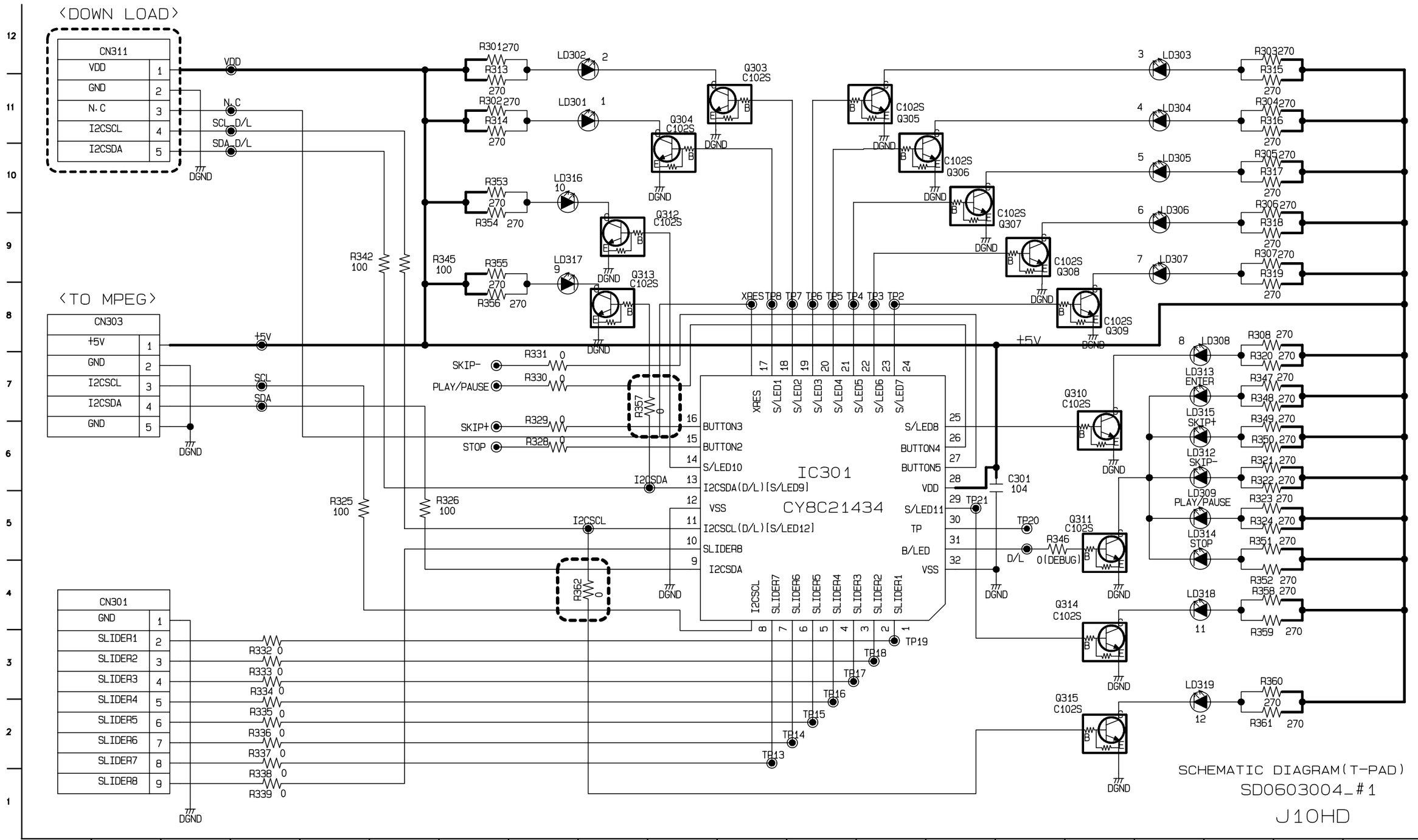


SCHEMATIC DIAGRAM(RCU)

SD0603097_SHEET#1

J10HD

19. TOUCH PAD CIRCUIT DIAGRAM



SCHEMATIC DIAGRAM(T-PAD)
SD0603004_#1
J10HD

• CIRCUIT VOLTAGE CHART

MODE / PIN NO.	EE	PLAY
IC105		
1	0	0
2	5.17	5.17
3	0	0
4	5.17	5.17
5	0	0
6	5.17	5.17
7	5	5
8	5.17	5.17
9	4.9	4.9
10	0	0
11	3.2	3.2
12	0	0
13	3.24	3.24
14	5.11	5.11
15	0	0
16	5	5
17	0	0
18	5.11	5.11
19	0	0
20	5.11	5.11
IC106		
1	5.08	5.08
2	0	0
3	0	0
4	2.2	2.2
5	5.7	5.7
6	1.85	1.85
7	4.3	4.3
8	1.27	1.27
9	2.2	2.2
10	0	0
11	1.85	1.85
12	0	0
13	2.17	2.17
14	5.7	5.7
15	2.2	2.2
16	5.08	5.08
17	2.28	2.28
18	2.28	2.28
19	0	0
20	2.26	2.26
21	2.26	2.26
22	0	0
23	2.07	2.07
24	2.07	2.07
25	0	0
26	0.8	0.8
27	0.98	0.98
28	0	0
29	2.08	2.08
30	2.08	2.08
31	0	0
32	2.33	2.33
IC109		
1	4.94	4.94
2	0.27	0.27
3	5.17	5.17
4	3.43	3.43

MODE / PIN NO.	EE	PLAY
5	2.58	2.58
6	5.19	5.19
7	0	0
8	0	0
9	5.18	5.18
10	3.6	3.6
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	3.73	3.73
17	3.71	3.71
18	3.2	3.2
19	0	0
20	0	0
21	2.35	2.35
22	0	0
23	5.18	5.18
24	0	0
25	0	0
26	0	0
27	0.26	0.26
28	4.94	4.94
IC110		
1	DATA(0)	
2	DATA(0)	
3	DATA(0)	
4	DATA(0)	
5	DATA(0)	
6	DATA(0)	
7	DATA(0)	
8	DATA(0)	
9	DATA(0)	
10	DATA(0)	
11	DATA(0)	
12	DATA(0)	
13	DATA(0)	
14	DATA(0)	
15	DATA(0)	
16	DATA(0)	
17	DATA(0)	
18	DATA(0)	
19	DATA(0)	
20	DATA(0)	
IC401		
1	0	
2	0	
3	8	
4	1.7	
5	1.71	
6	0	
7	0	
8	0	
9	0	
10	0	
11	0	
12	8	
13	0	

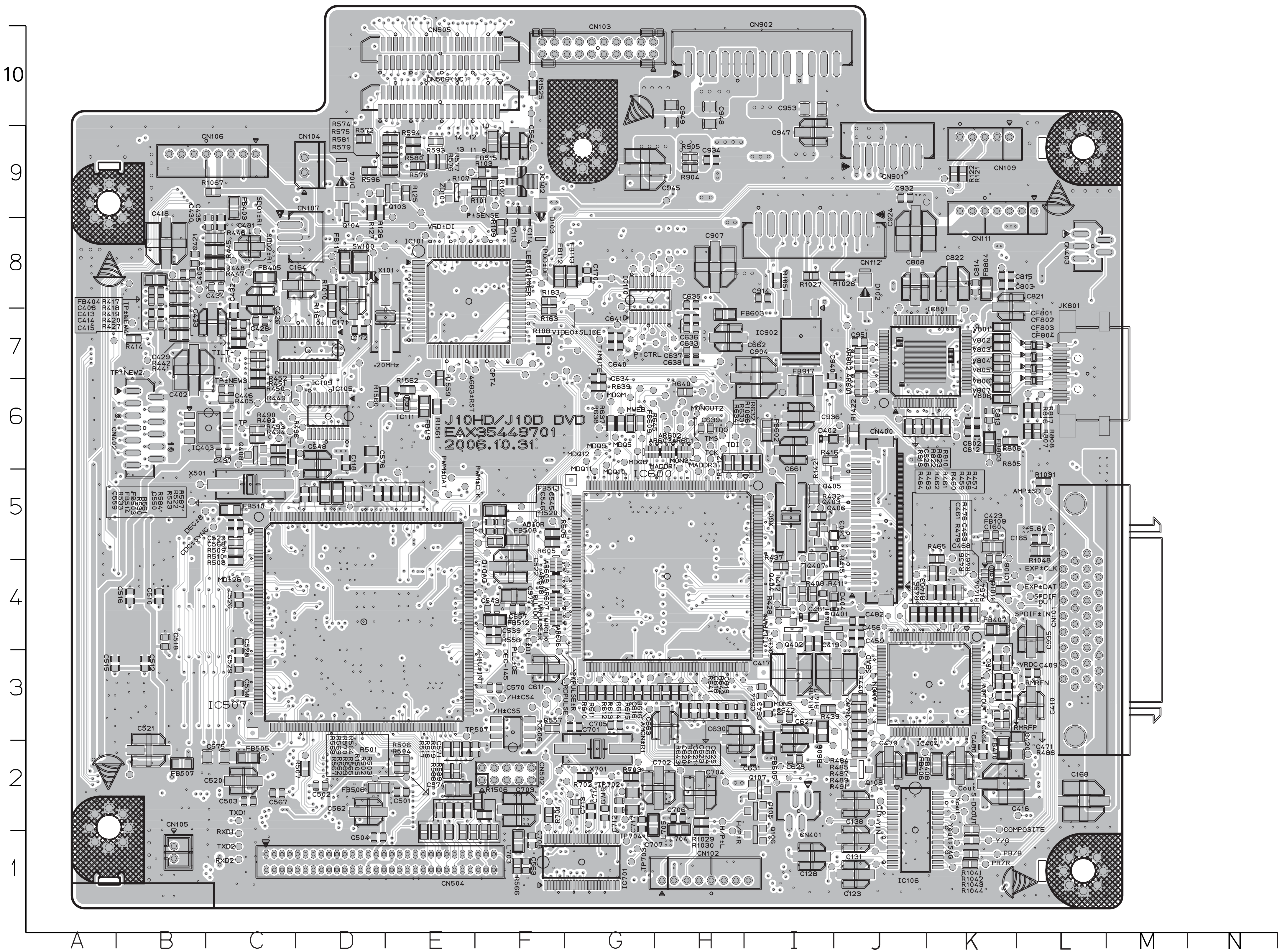
MODE / PIN NO.	EE	PLAY
14	0	
15	0	
16	0	
17	8	
18	8	
19	0	
20	0	
21	0	
22	0	
23	0	
24	0	
25	0	
26	1.71	
27	0	
28	5.11	
29	1.71	
30	1.71	
31	8	
32	8	
33	0	
34	0	
35	0	
36	0	
37	0	
38	0	
39	0	
40	0	
41	0	
42	1.71	
43	3.34	
44	0	
45	0	
46	2.53	
47	1.23	
48	5.1	
49	0	
50	0	
51	0	
52	0	
53	0	
54	0	
IC402		
1	2.05	2.05
2	2.03	2.03
3	0	0
4	0	0
5	0.44	0.44
6	0	0
7	0	0
8	5.1	5.1
IC403		
1	1.7	1.7
2	1.7	1.7
3	1.7	1.7
4	0	0
5	1.7	1.7
6	1.7	1.7
7	1.7	1.7
8	5.1	5.1

MEMO

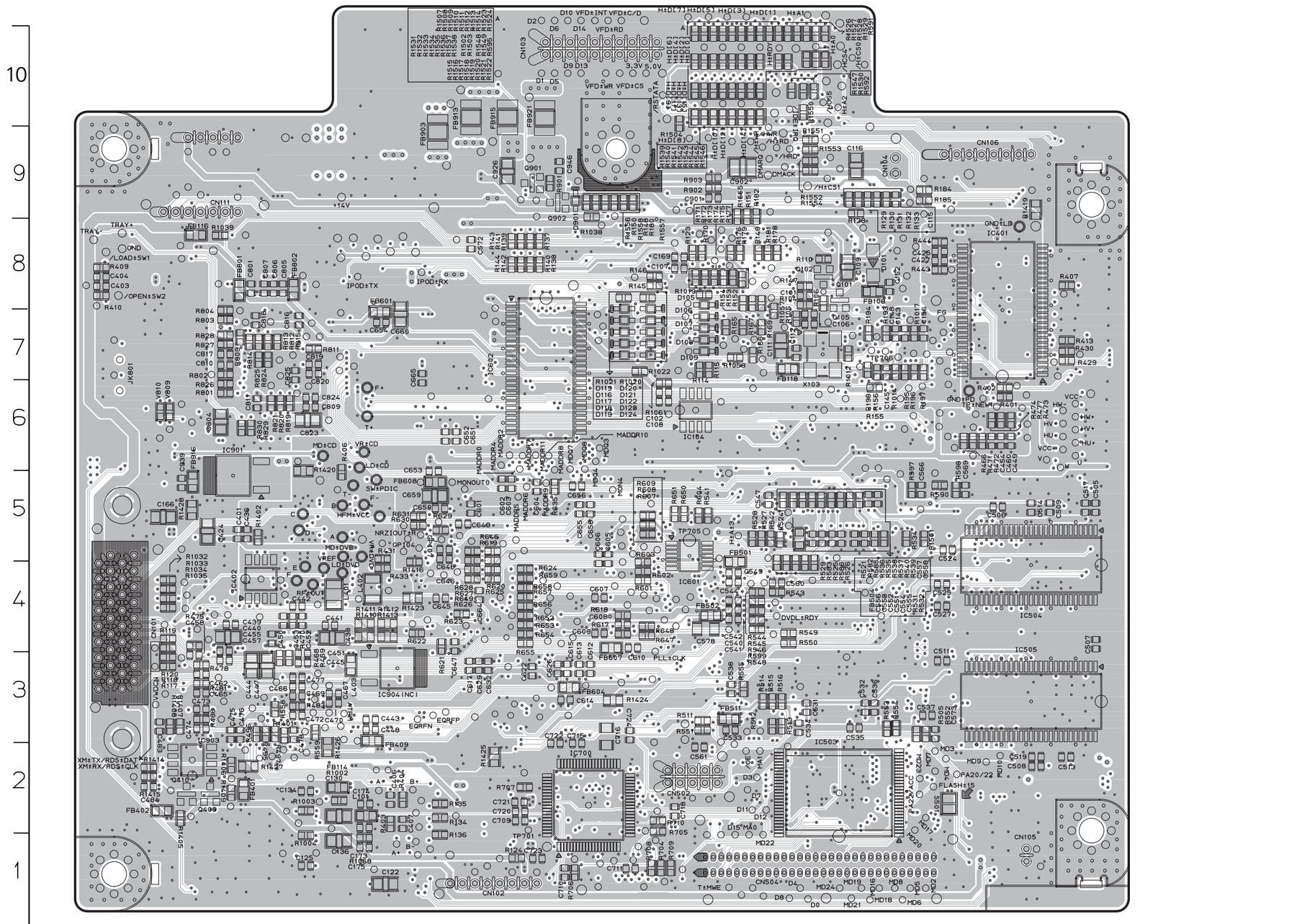
PRINTED CIRCUIT DIAGRAMS

1. DVD MAIN P.C.BOARD

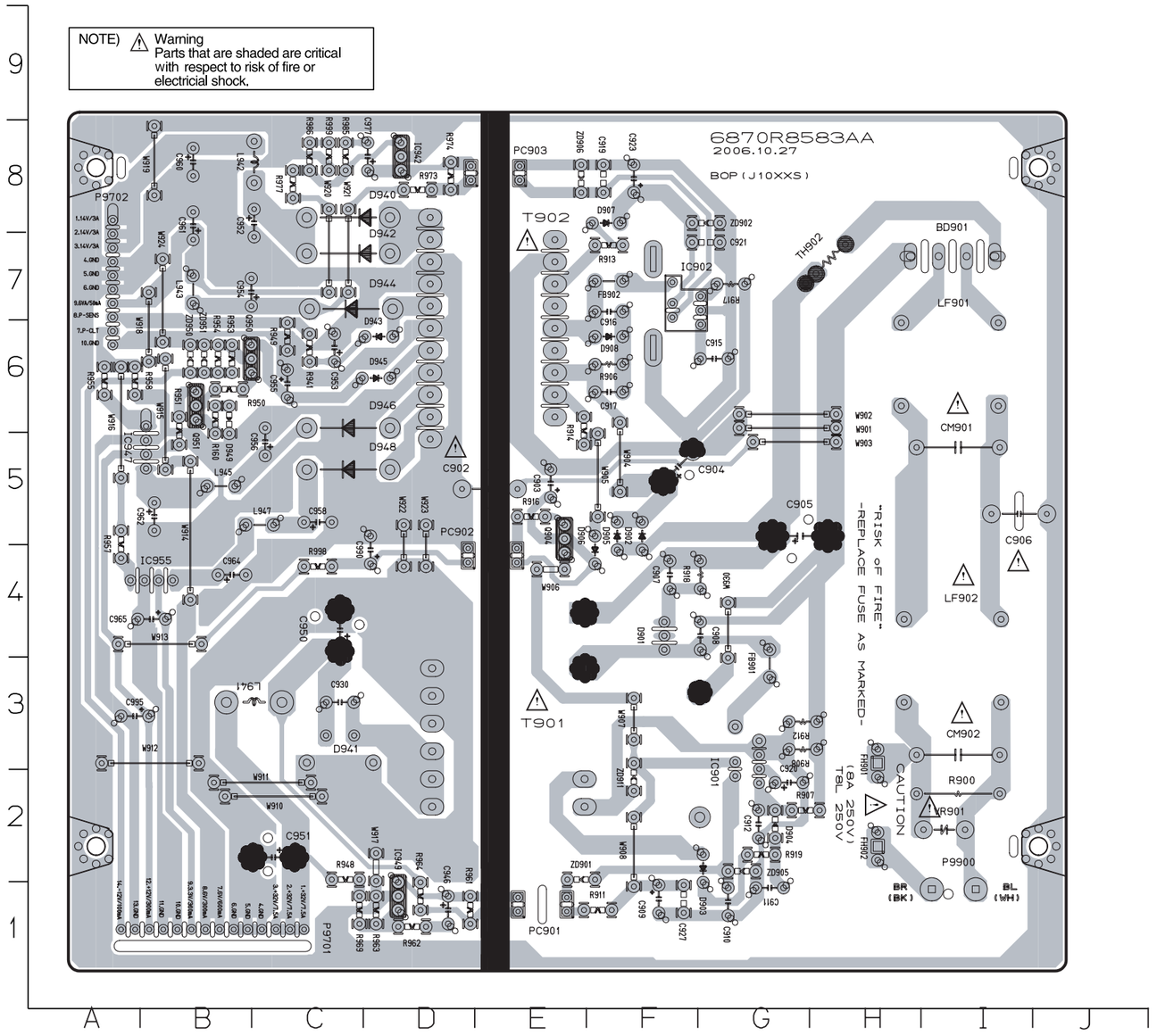
(TOP VIEW)



DVD MAIN P.C.BOARD
(BOTTOM VIEW)

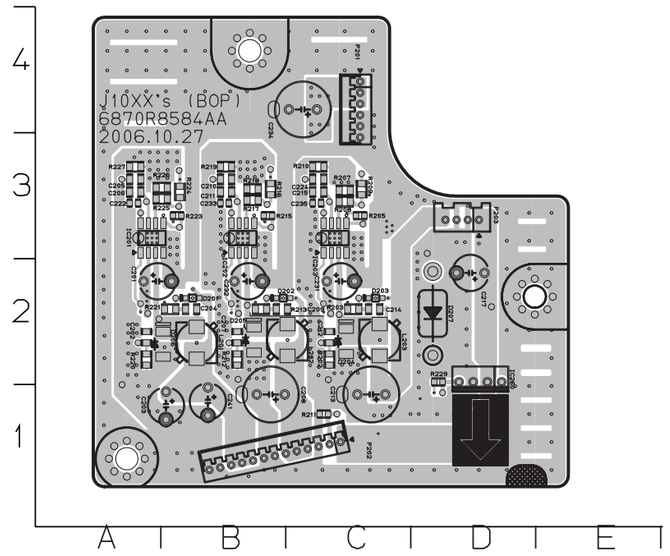


2. MAIN SMPS P.C.BOARD

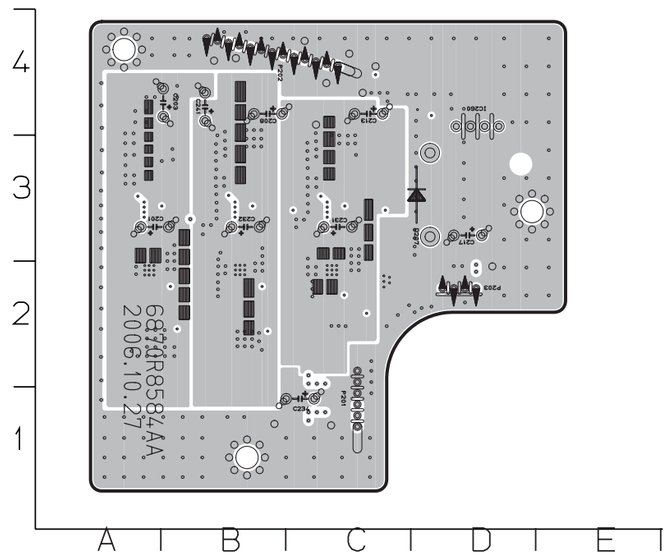


3. DC/DC CONVERTER P.C.BOARD

(TOP VIEW)

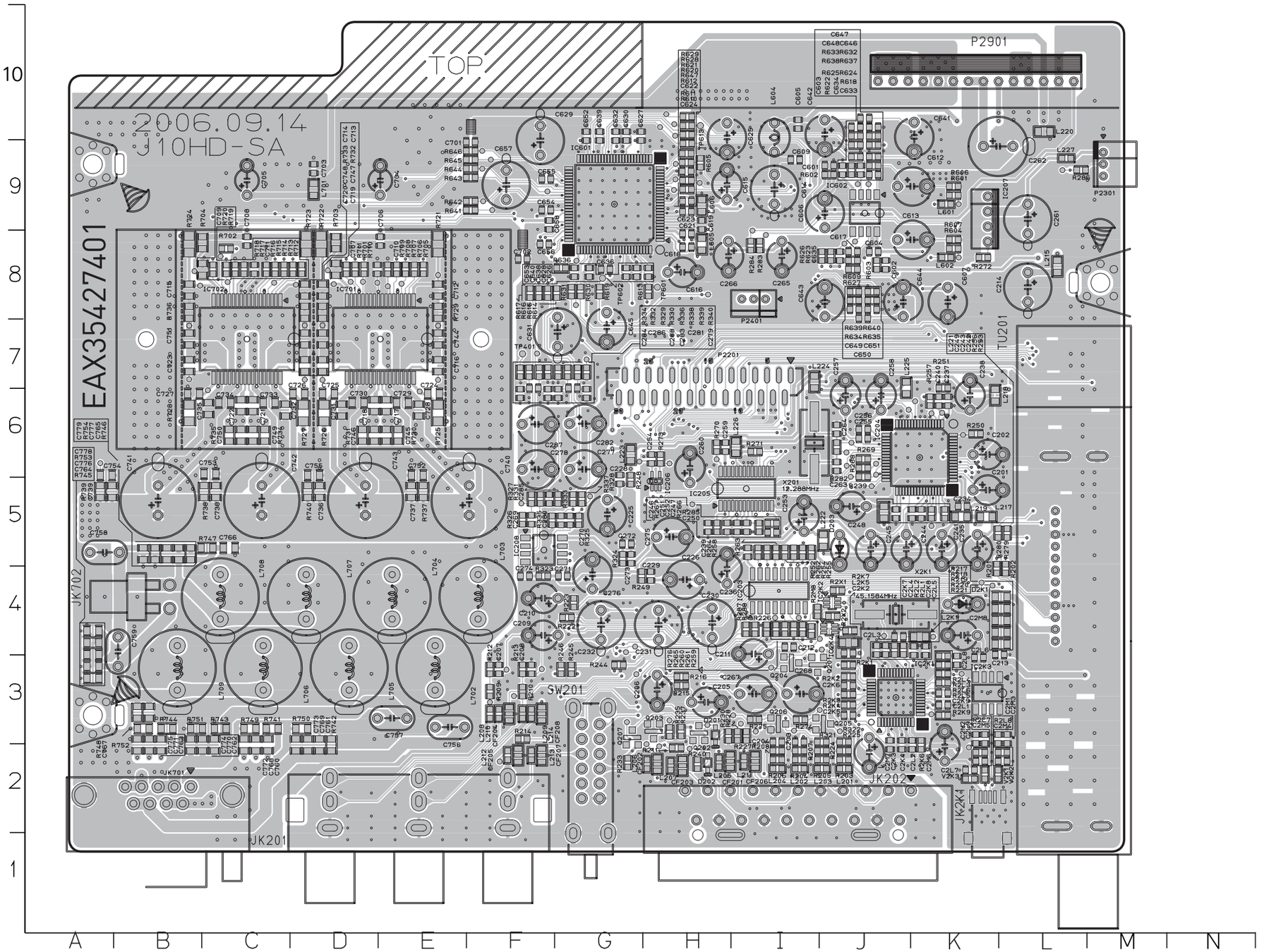


(BOTTOM VIEW)

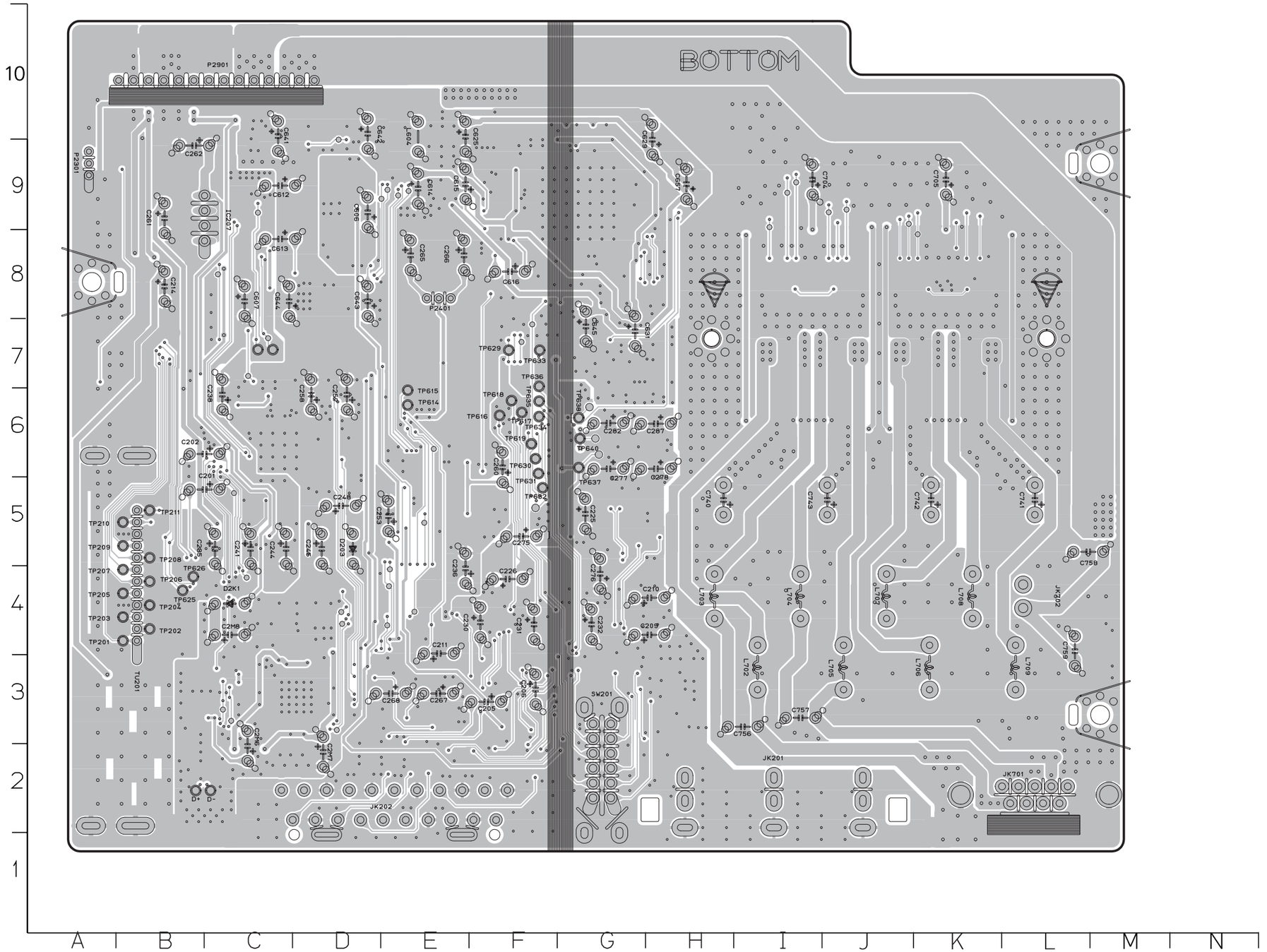


4. MAIN AMP P.C.BOARD

(TOP VIEW)

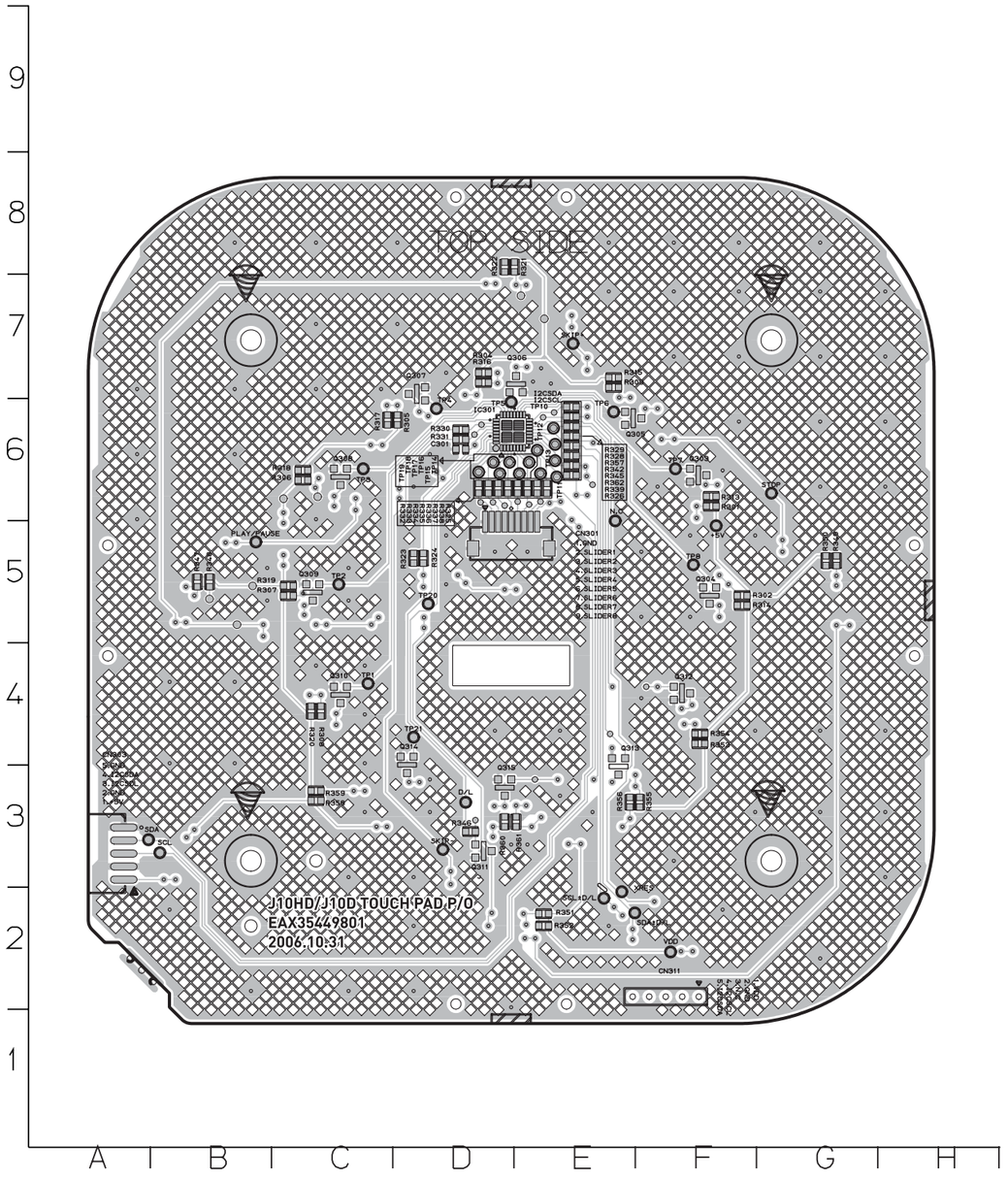


MAIN AMP P.C.BOARD
(BOTTOM VIEW)

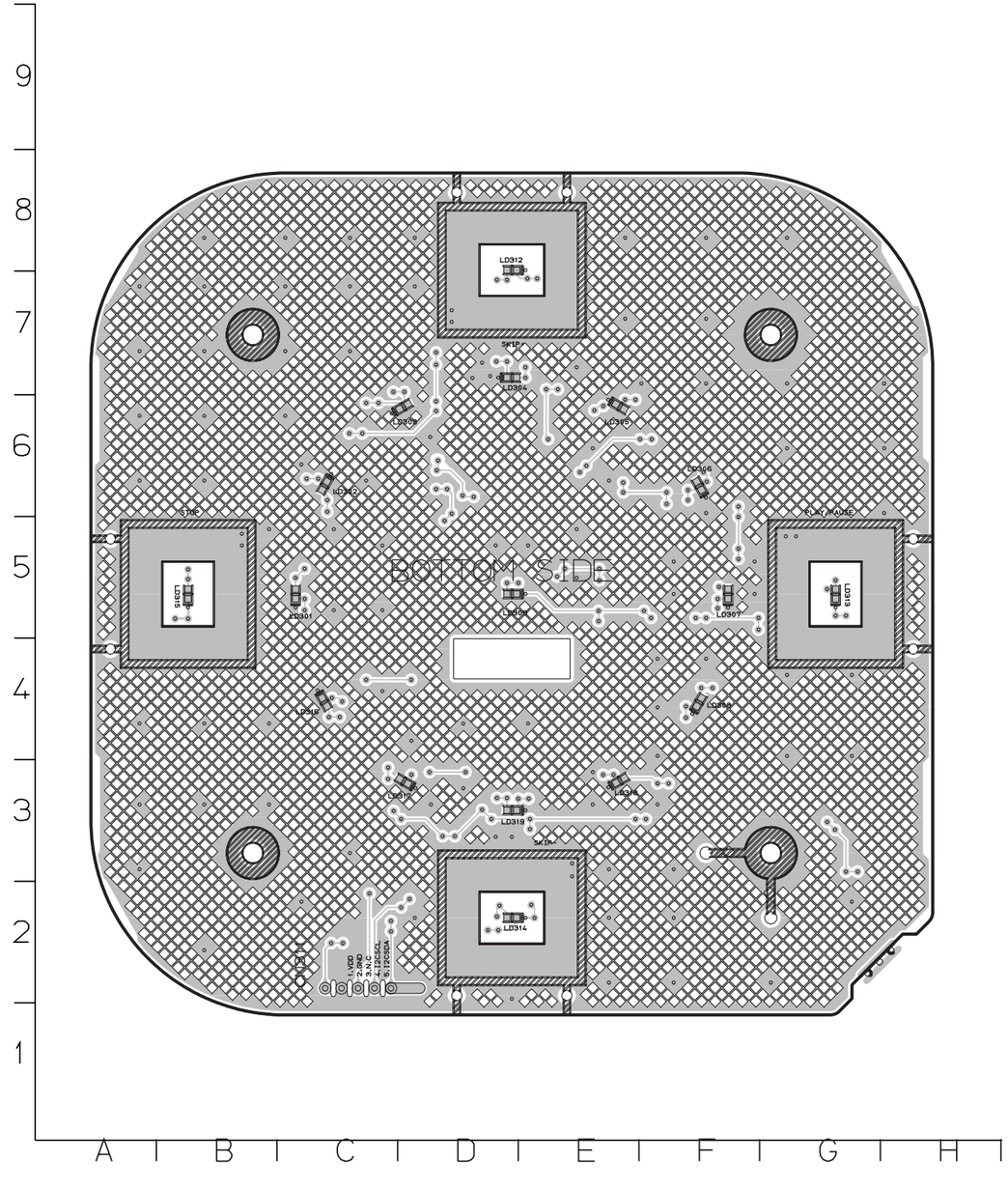


5. TOUCH PAD P.C.BOARD

(TOP VIEW)

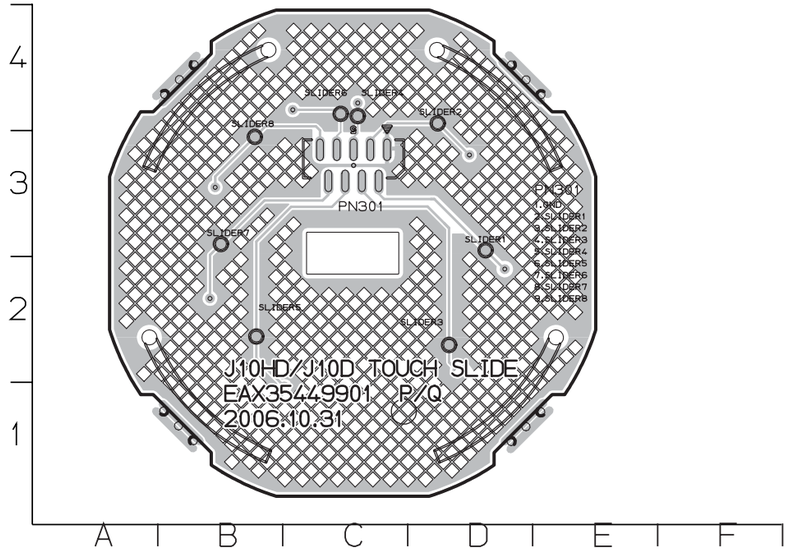


(BOTTOM VIEW)

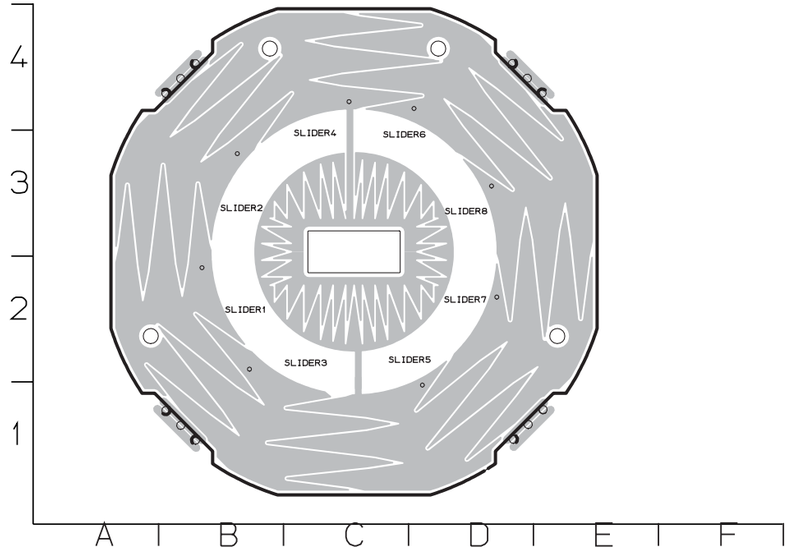


6. TOUCH SLIDE P.C.BOARD

(TOP VIEW)

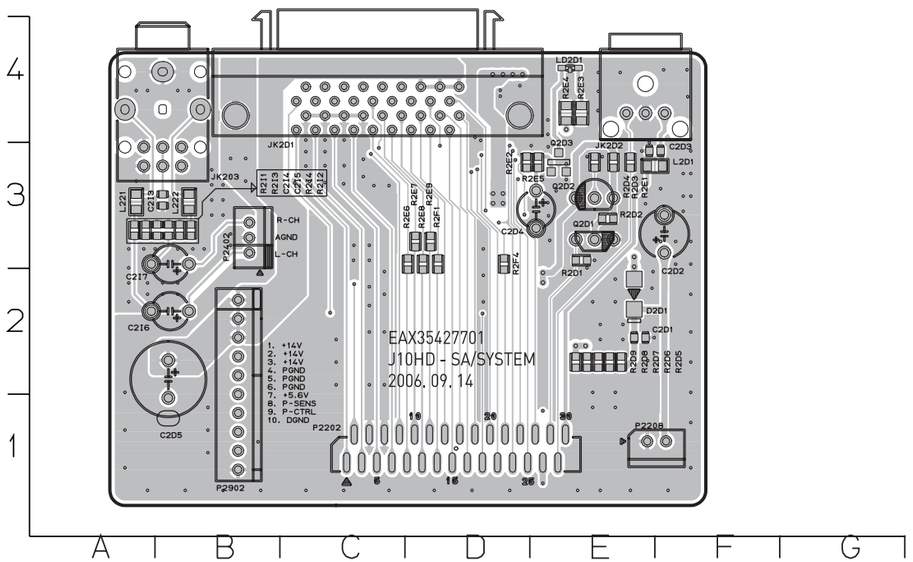


(BOTTOM VIEW)

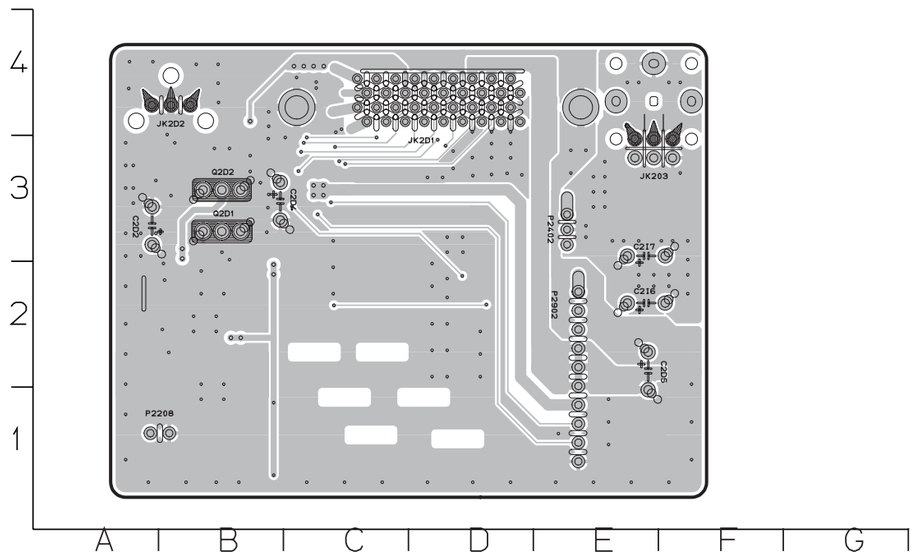


7. I/O P.C.BOARD

(TOP VIEW)

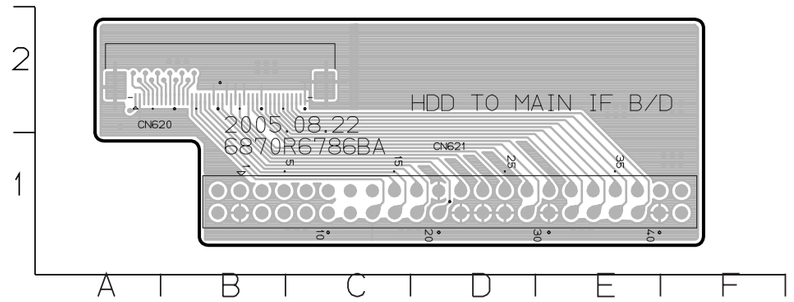


(BOTTOM VIEW)

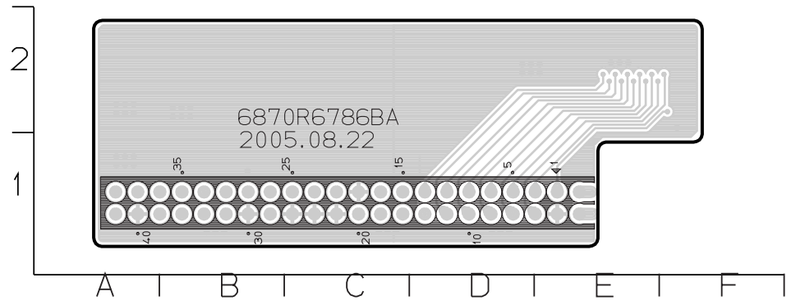


8. HDD TO MAIN ATAPI P.C.BOARD

(TOP VIEW)

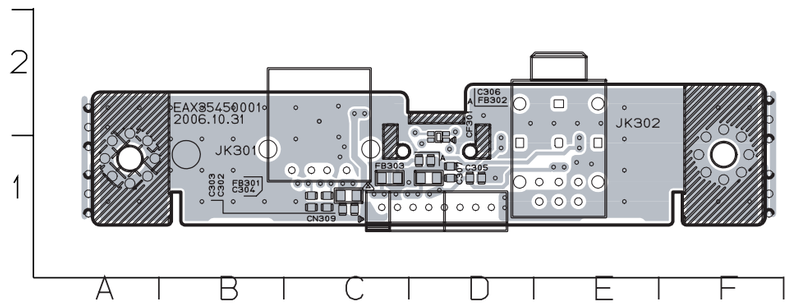


(BOTTOM VIEW)

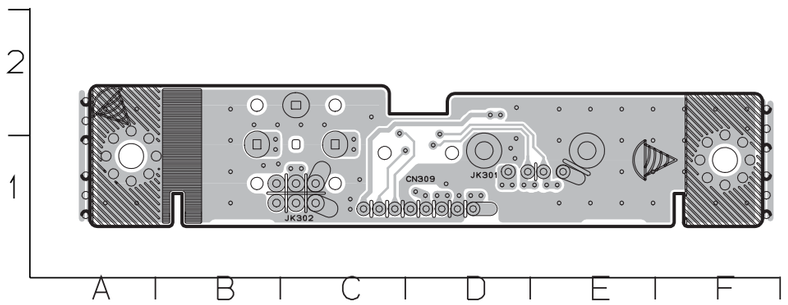


9. USB & PHONE P.C.BOARD

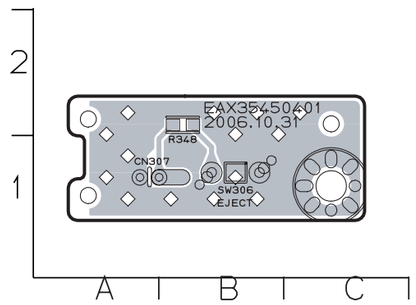
(TOP VIEW)



(BOTTOM VIEW)

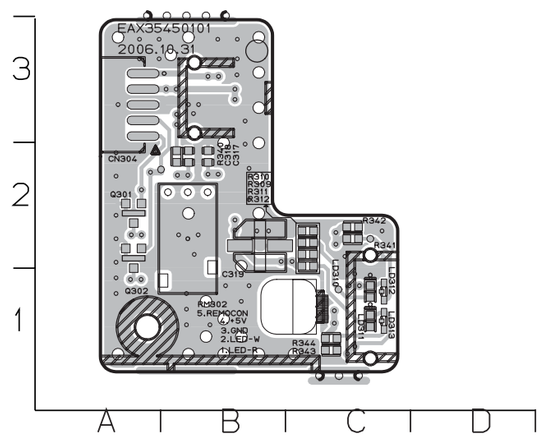


10. EJECT P.C.BOARD

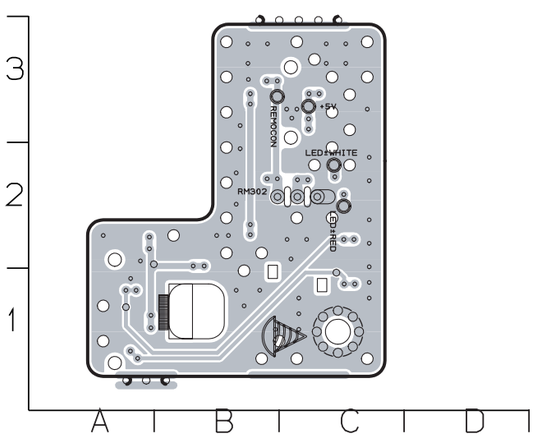


11. LOGO P.C.BOARD

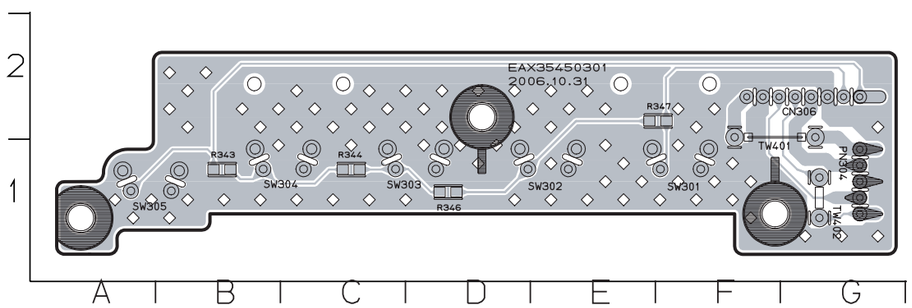
(TOP VIEW)



(BOTTOM VIEW)

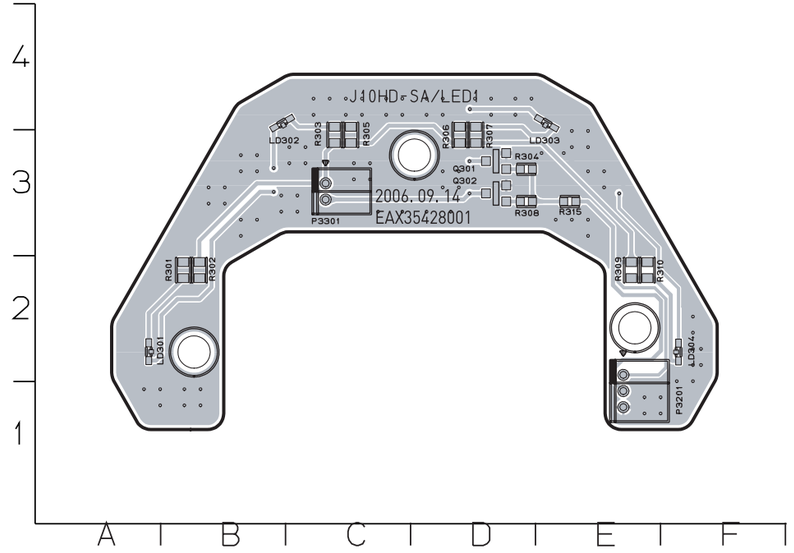


12. KEY P.C.BOARD

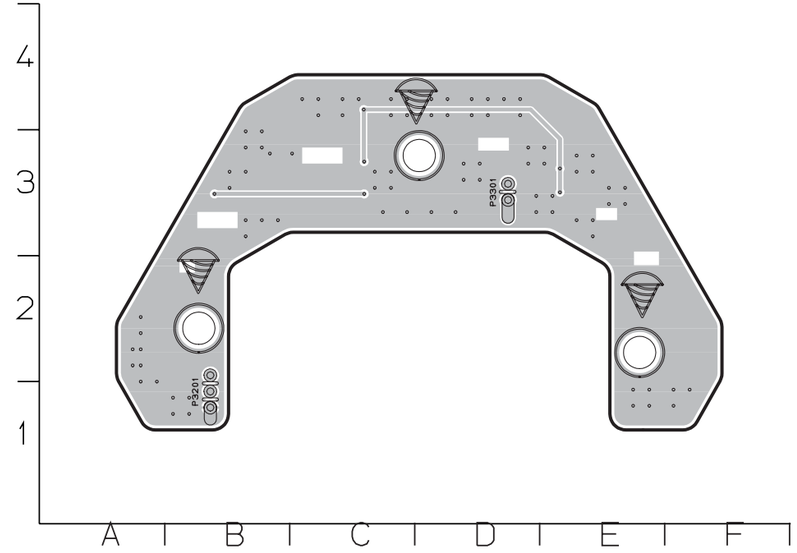


13. LED 1 P.C.BOARD

(TOP VIEW)

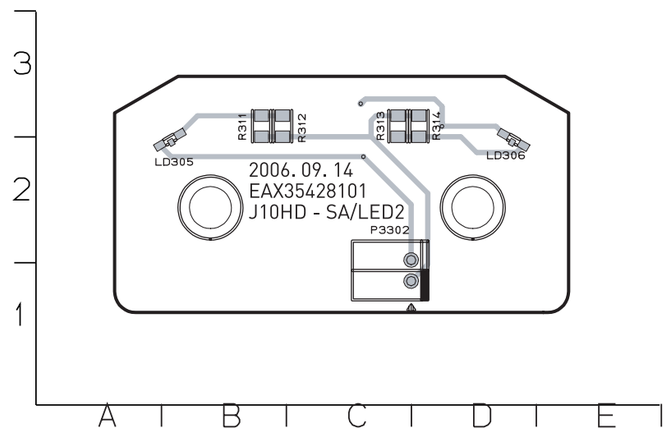


(BOTTOM VIEW)

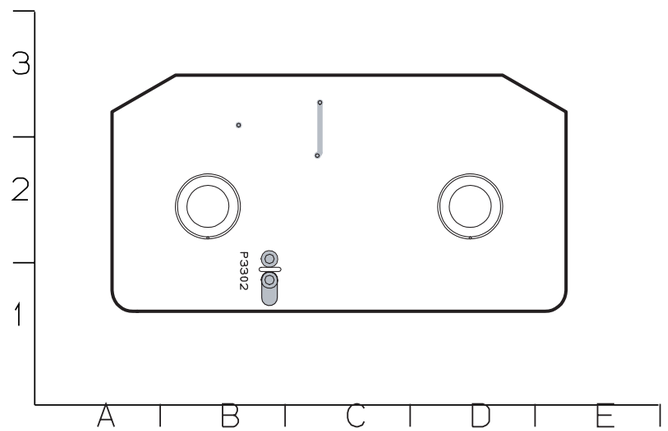


14. LED 2 P.C.BOARD

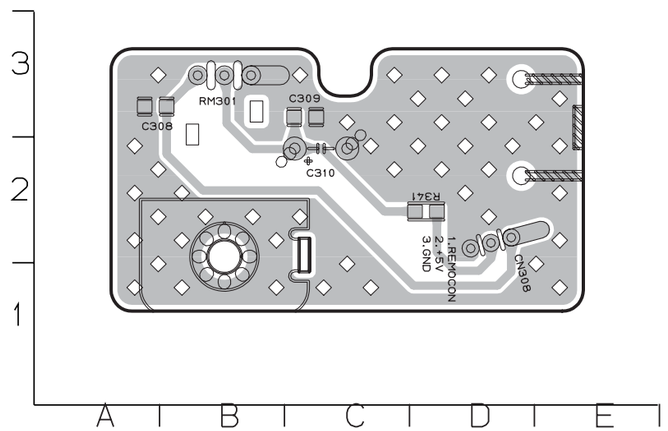
(TOP VIEW)



(BOTTOM VIEW)



15. RCU P.C.BOARD



SECTION 3

CABINET & MAIN CHASSIS

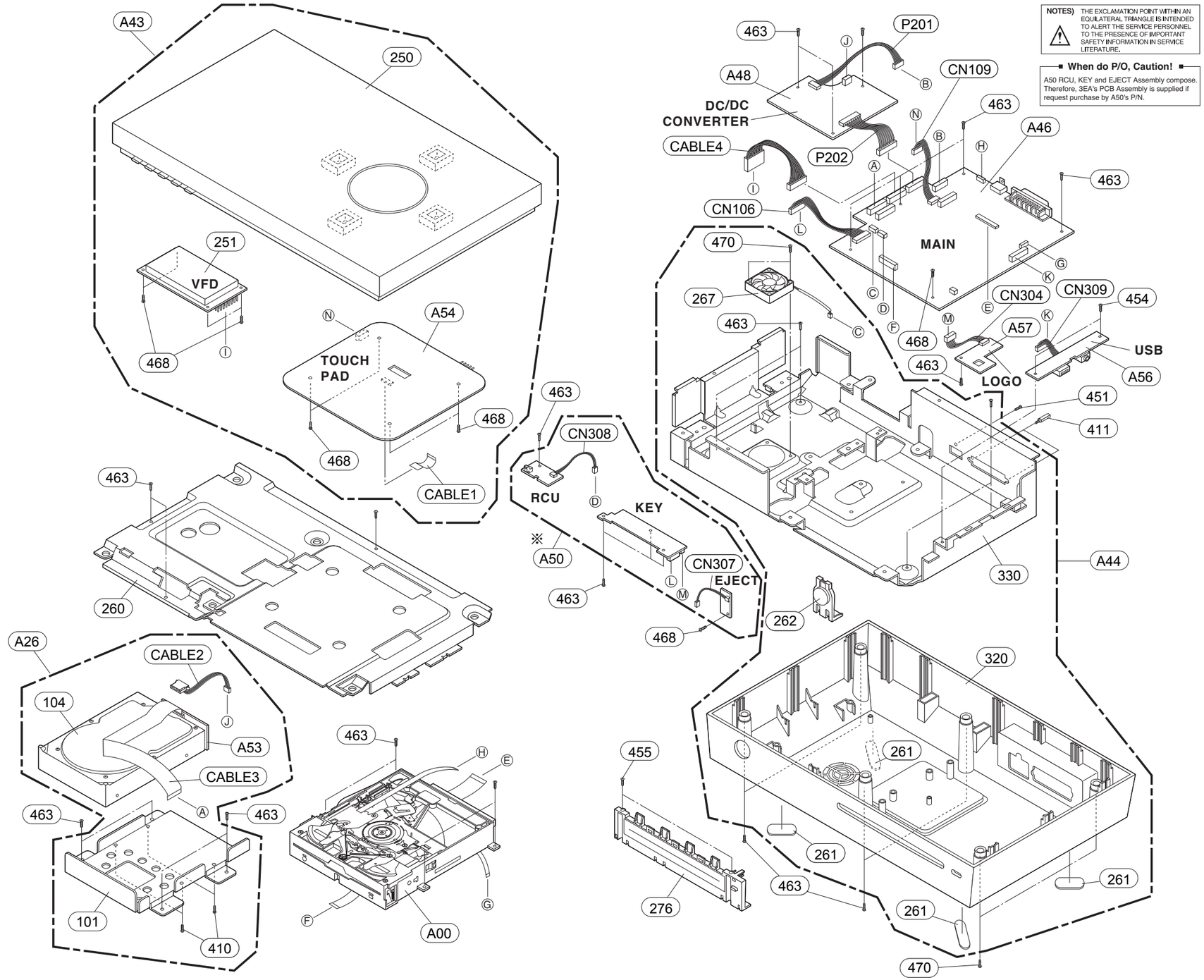
CONTENTS

EXPLODED VIEWS 3-3
1. CABINET AND MAIN FRAME SECTION 3-3
2. DECK MECHANISM SECTION (SDP-03) 3-5
3. SPEAKER SECTION 3-7
4. PACKING ACCESSORY SECTION 3-11

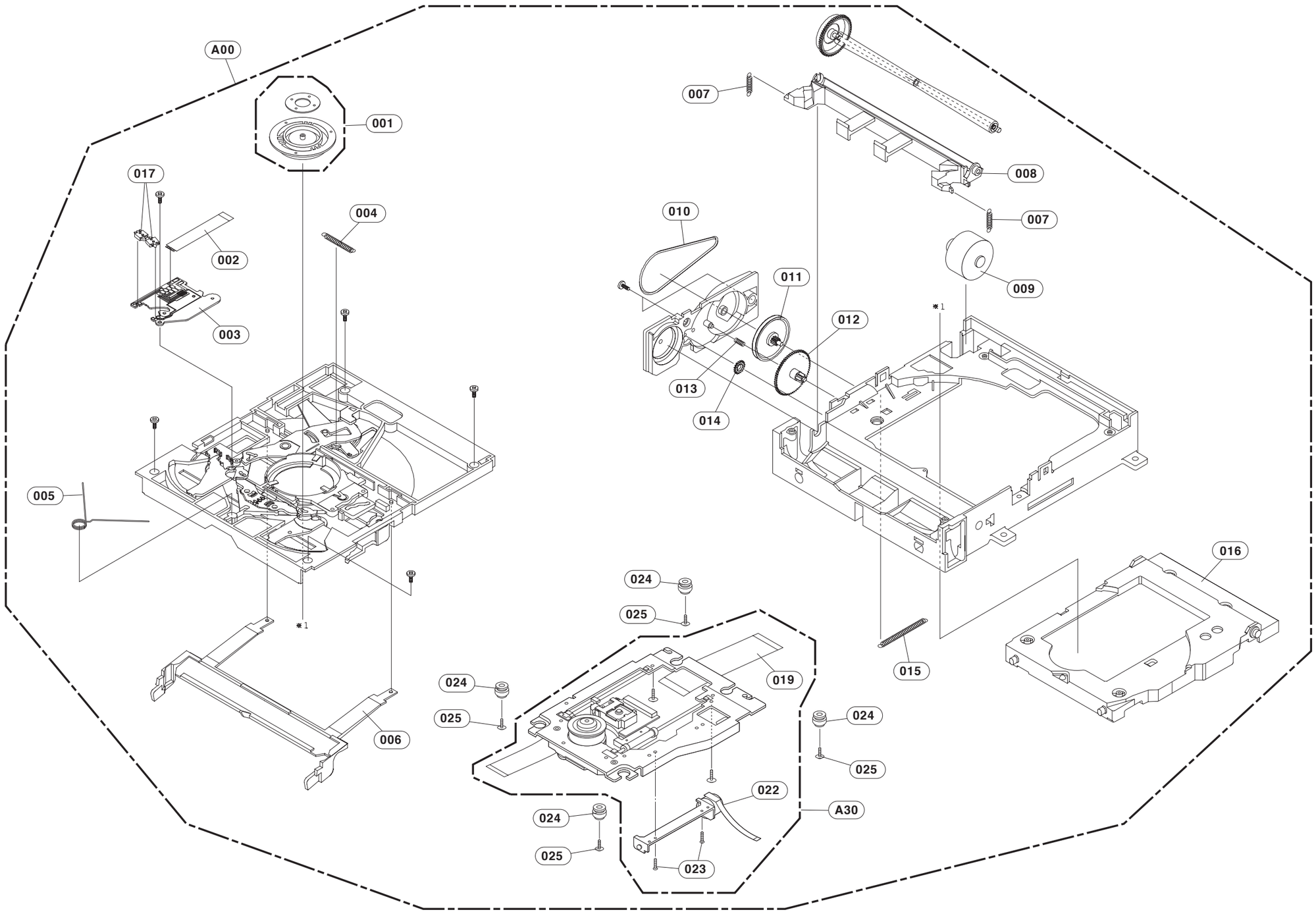
MEMO

EXPLODED VIEWS

1. CABINET AND MAIN FRAME SECTION

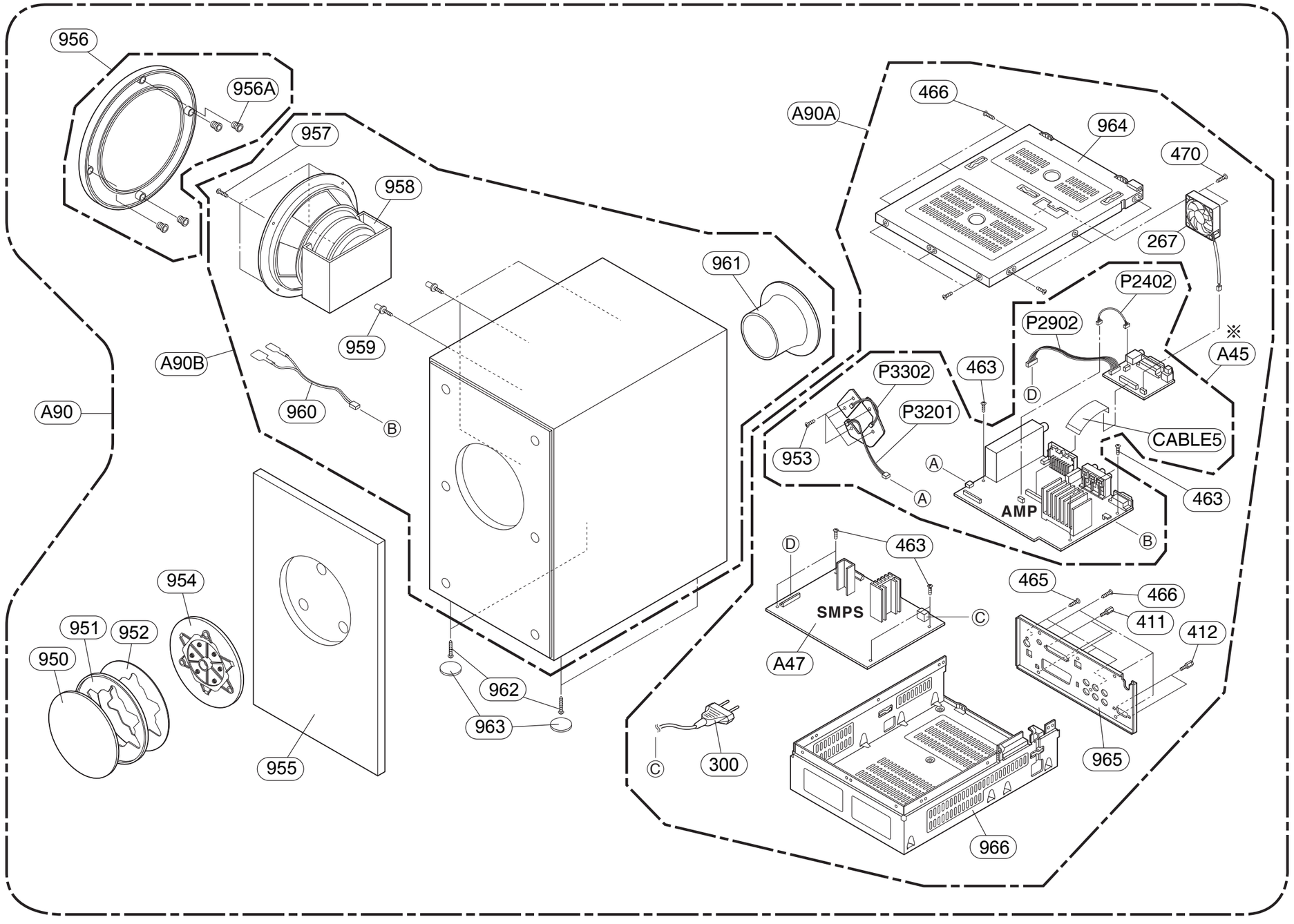


2. DECK MECHANISM SECTION (SDP-03)



3. SPEAKER SECTION

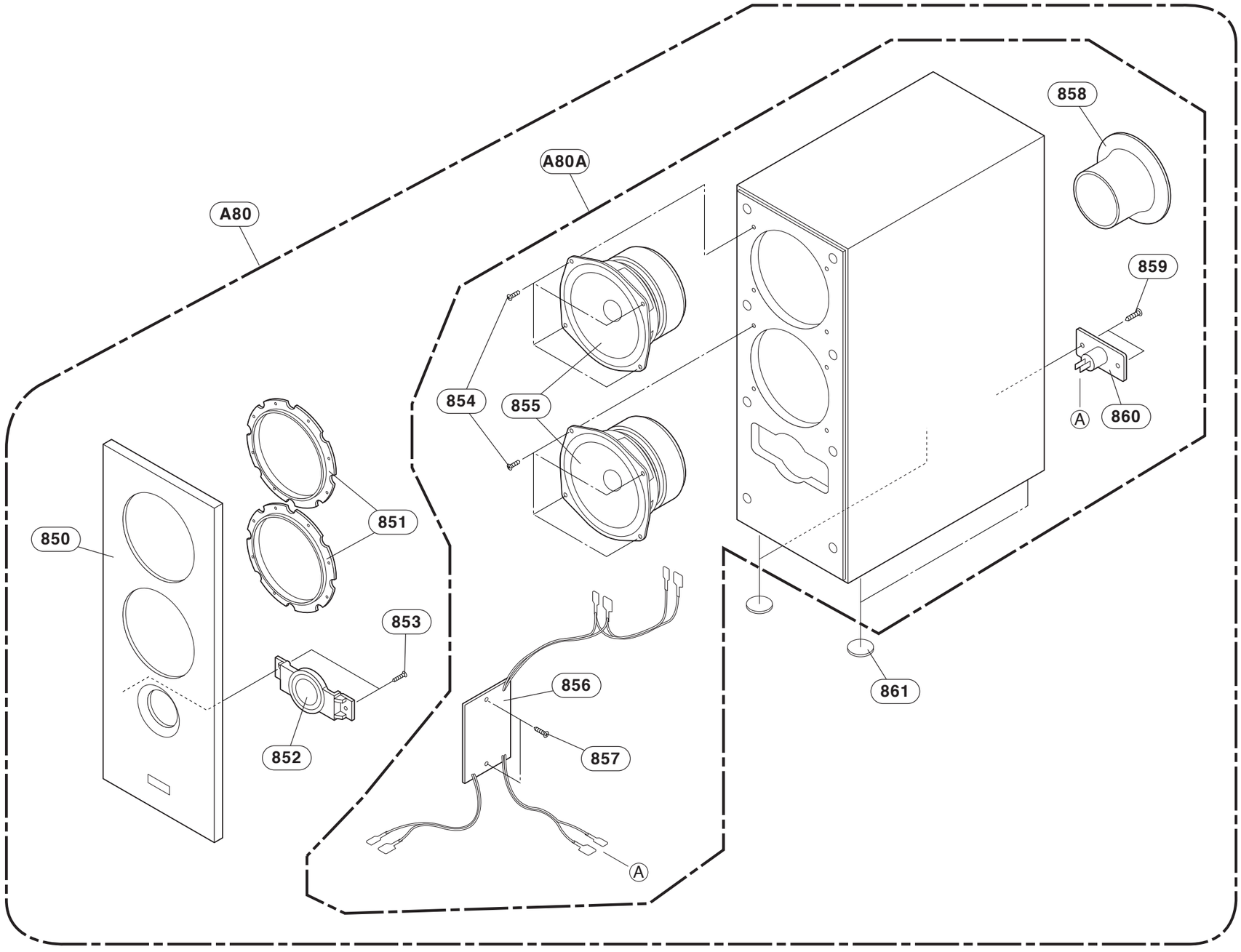
3-1. ACTIVE SUBWOOFER (J10HD - SA)



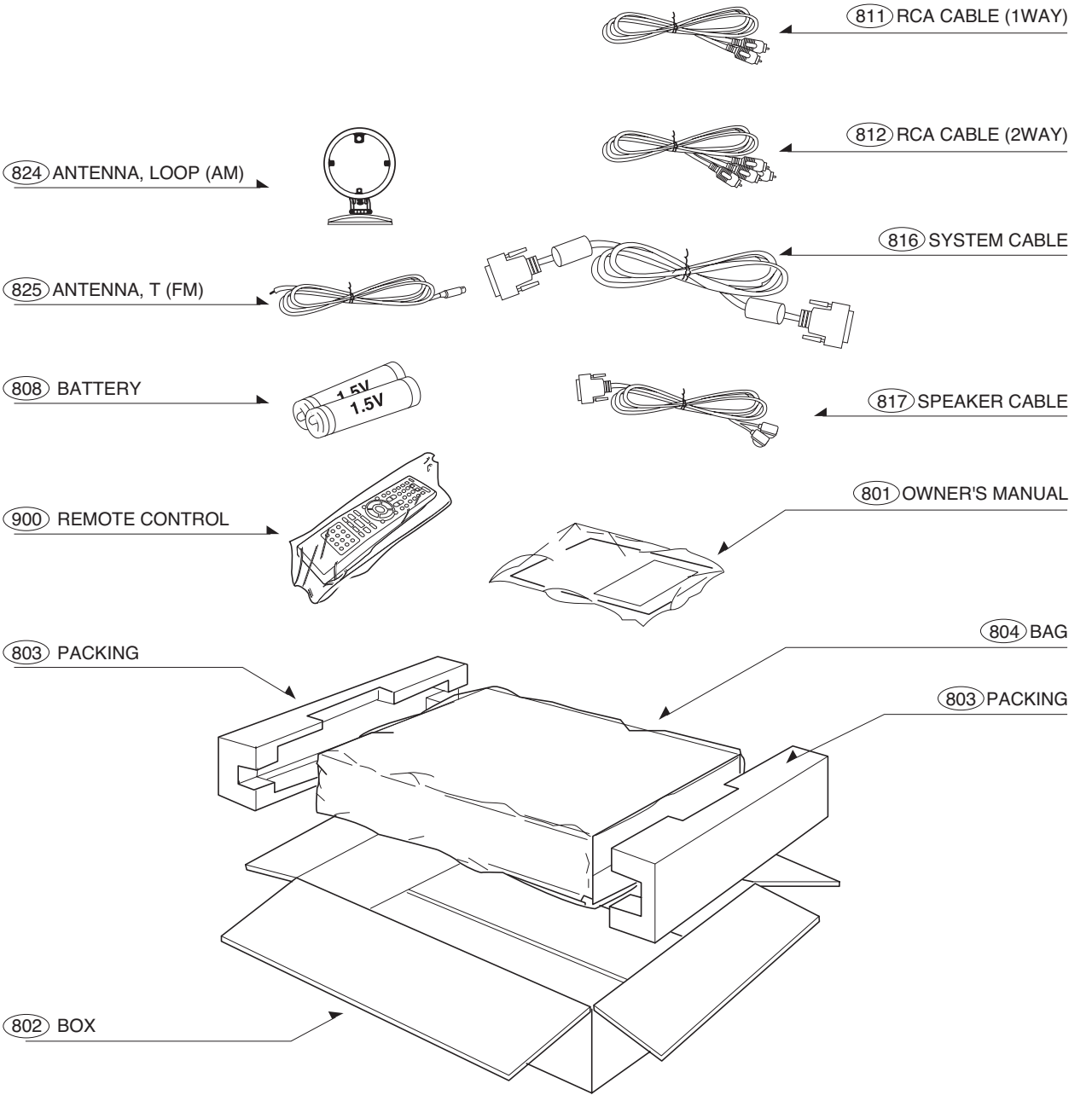
When do P/O, Caution!

A45 AMP, I/O and LED Assembly compose. Therefore, 3EA's PCB Assembly is supplied if request purchase by A45's P/N.

3-2. FRONT SPEAKER (J10HD - SF)



4. PACKING ACCESSORY SECTION



MEMO